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ABSTRACT

This reports offers a synthesis of the current knowledge and theoretical positions concerning the disproportionate representation of minorities in special education. It is divided into five broad sections: (1) an introduction which clarifies the terminology and purpose of the report; (2) an overview of the position of minority students in the nation's education system; (3) a description of the pervasiveness and patterns of disproportionate placement, including an analysis of data from the Office for Civil Rights and the National Longitudinal Transition Study of Special Education Students; (4) an outline and discussion of the various explanations or interpretations that have been offered for this phenomenon (including characteristics of the students, biases in the assessment process, and characteristics of students' homes and communities); and (5) recommendations. The report finds no single reason for disproportionate representation but does find that continuing educational and social inequities combine to place poor minority students at particular disadvantage. Recommendations address: the collection and use of data on disproportionate representation; disbanding the classification system; restructuring for a unified system of special and regular education; restructuring for prevention of failure and the redress of disadvantage; assessment in context, for the purpose of modifying and improving services; curriculum and instruction in context; grouping students in schools; and schools as community resources. Contains 198 references. (DB)

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THE DISPROPORTIONATE REPRESENTATION OF MINORITY STUDENTS IN SPECIAL EDUCATION: THEORIES AND RECOMMENDATIONS

by

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PREFACE

The issue of disproportionate representation of minorities in special education has been of concern to educators, administrators and policy makers for several decades. The term refers to the over and under representation of ethnically and culturally diverse students in special education services and programs.

Numerous perspectives have been publicly expressed and numerous remedies proposed. The issue has been addressed by the judiciary with resultant impact on the educational system. At the Federal as well as the State and local levels, there has been a perceived need for a document that brings together major research theories and findings from the various sources of relevant information on this critical topic, and draws from this body of knowledge implications for an action agenda that can inform educators, administrators and policy makers at all levels. This topic is admittedly a complex one with multiple themes and issues which must be addressed at all levels using multiple venues.

The U. S. Department of Education supports research on issues of disproportionate representation of minorities in special education, collects data on numbers of students served in special education, and monitors compliance with Federal laws. The Office of Special Education Programs authorized the present compilation under the Project FORUM contract for information exchange administered by the National Association of State Directors of Special Education. While this work does not attempt to examine all of the relevant issues in depth, it is a scholarly consolidation of various threads of research, litigation, and extant data, and it does provide a conceptual framework for thoughtful discussion. This synthesis was done with the expectation that such a document would make pertinent research findings and other information accessible to a broad audience who will, in turn, put into place policy and practice that will address issues in the delivery of appropriate services to diverse populations of individuals with disabilities.

THE DISPROPORTIONATE REPRESENTATION OF MINORITIES IN SPECIAL EDUCATION

I. INTRODUCTION

In 1992, the Office for Civil Rights (OCR) in the U.S. Department of Education met with civil rights leaders and special education groups to discuss the problem of the disproportionate representation of minority students in special education (Hoff, 1992). The Assistant Secretary for OCR had, as early as 1990, made the issue of disproportionate representation part of OCR's enforcement agenda, and by 1992 OCR was in the process of developing a plan for addressing the issue. Several options were being considered including developing a new policy statement, providing special training for OCR staff, and offering technical assistance to Local Education Agencies (LEA's) regarding placement of minority students into special education programs.

The issue of disproportionate placement was first brought to public attention through a series of occurrences between 1968 and 1973: Dunn's landmark paper (1968) on the high numbers of African American students in classes for the mildly retarded, a spate of litigation in California, and Mercer's (1973) well publicized study of African American and Mexican American youth, which found that minority and low socioeconomic status were highly correlated with special education placement. In the subsequent 25 years, numerous studies and surveys have verified the continuance of this pattern, numerous arguments have been proposed to explain it, and equally numerous attempts have been implemented to address or redress the problem.

Clarification of Terminology

Language is seldom as precise as we would like it to be. We begin by acknowledging that many of the terms that we use in discussing this issue are imperfect for the task. The following clarifications concerning terminology are central to this paper.

The Meaning of Disproportionate Representation

Two concerns about the meaning of disproportionate representation need to be clarified at the outset. First, the meaning of the term disproportionate representation: Reschly (1988, 1991) has emphasized the distinction between the percentage of a minority group who are in a special education program and the percentage of a special program by minority group. In other words, Reschly is concerned that people have misunderstood the "overrepresentation" phenomenon to mean that large percentages of a minority group, for example, African American, are placed in a special program, while, in fact, **the term means that the percentage of minority students in the program is larger than the percentage of that group in the educational system as a whole**. Using the *Larry P.* case as an example, Reschly (1991) explained the distinction as follows:

> Consider these facts. At the time of the initial *Larry P.* injunction in 1972, 10% of the overall student population in California was Black; however Black students constituted 25% of the population of students in MMR programs...The question is, What proportion of Black students were in MMR programs? In fact the proportion was very low, only 1.1% in 1977. (p.15)

This distinction as to the meaning of disproportionality is crucial. However, it is equally important to note that shifting the emphasis to the small percentage of any group in special education in no way alters the fact of disproportionality, since **all** groups, minority and White, are present in small numbers in special education programs. The fact that we are speaking only of quite small numbers is a given in special education and cannot be construed to mitigate the fact of disproportion. The concept of disproportion means relative, not absolute numbers.

The second aspect of the terminology that must be clarified is that disproportionate placement is simply a fact; to say that it exists is not to beg the question that it constitutes a "problem". Certainly, it could be argued that, although the figures are surprising according to generally accepted laws of probability, there may be good reason for such a pattern; for example, that these students have particular needs that are being met by special education placement. This question is central to the topic and the arguments related to it will be addressed in this paper.

Use of the Term Minority

Whatever the arguments, the continuing disproportionate placement of minority students in special education programs across the country is of increasing concern to all educators. To dramatize the importance of the phenomenon, one need only note that, owing to the rapid and steady increase in the diversity of the nation as a whole, those who have been in the minority are rapidly becoming the majority. While the term "minority" theoretically indicates a numerical minority, its historical use in the U.S. connotes people of color. For example, the racial classifications used by the OCR indicate a "white/non-white" framework, in which the numbers of students are collected under five designations, and are then collapsed into two overall groups of "white" and "minority". Projections for the coming century, however, make it clear that this way of categorizing students will soon be an anachronism. According to Hodgkinson (1992), some of the most politically powerful States (e.g., Texas, California, and New York) will have a majority of "non-white youth" by 2010, while in 12 States, this population will range from 40 to 93 percent. In the nation as a whole, Hodgkinson predicts that the year 2010 will see an overall minority population of 38.2 percent.

Certainly, the term minority is already inappropriate in many large urban school systems, which are populated predominantly by students of color. In these school systems, it is no longer appropriate to speak in terms of "disproportionate placement"; rather, what is alarming in many of these cities is the size of the special education program itself. In Baltimore City Public Schools in 1988, for example, where the student body was 80 percent African American, more than 18 percent of students were served by special education programs (Maryland State Department of Education, 1988).

Thus, it is evident that the term "minority" is already anachronistic for the U.S. society. It does, however, reflect concerns over inequities regarding political power and equal access to education. In this sense, the term does not only refer to numbers and percentages; it reflects the overall political context of the society, in that ethnic minorities of color constitute the largest groups in poverty in the United States. The term has been used in this report as an acknowledgement of differences in power and status and the ways in which society reinforces these inequities.

Within-Group Variability in Minority Classifications

Terminology related to minority groups is always a matter of sensitivity. There are three main reasons for this: First, it is usually the dominant society that assigns a group classification to a minority people; these classifications may not be meaningful to the people themselves. Second, the terminology chosen to refer to a group may be unacceptable to members of the group. Third, the education and census classifications purport to reflect racial categories, but, in fact, have little correlation with race and ignore the common fact of mixed racial origin. Thus, the classification system applied to a minority group reflects the generalities by which the group is identified by outsiders, rather than a set of necessary characteristics shared by all members. By this process, we in the U.S. use the terms Asian, Native American, African American, and Hispanic as umbrella terms to subsume people from widely differing national, linguistic and racial backgrounds.

People referred to as Hispanics in the U.S. come from any of the countries of Central and South America and the Caribbean where Spanish dominance was established. Many of these peoples share a common, though variable language, although many also speak native indian languages that predated Spanish colonization. They may share several cultural and religious commonalities derived from Spanish influence, but also differ vastly according to the relative role of Spanish, native, and African cultural roots in the life of the region. They have no necessary common racial similarities, since many are White, many are Black, many are of Central or South American Indian stock and many are of mixed race.

People we refer to as Asians may share some common philosophical and religious roots, as in the mutual compatibility of religions such as Confucianism, Taoism and Hinduism (Leung, 1988); however, there are also many belief systems in Southeast Asia that differ from these better known religions. "Asian" peoples may share no racial commonality, as can be seen in the vast differences among people from India, China, and Southeast Asia. Indian languages alone have been estimated at over 200 (Pattanayak, 1988), while those of Southeast Asia number more than this. Cultural differences between these groups are vast, for example, in terms of the emphasis placed on formal education and scholarship in countries like India, Japan, Korea and

China, as compared to many Southeast Asian or Pacific Island groups who have more oral than written traditions.

African American people share a common language, despite regional and social class differences, and share the fact of some, even minimal, amount of negroid racial characteristics; many people in the U.S. who are referred to as Black are more White than Black in terms of their genetic makeup, and would not, in other countries, be regarded as Black. Because this group has been, for centuries, indigenous to the U.S., the cultural framework is a mixture of African roots, the experience of historical oppression, and adaptation to mainstream American culture. Boykin (1986) has referred to these three aspects as the "triple quandary" of African American consciousness. Further, social class and geographical differences add to the varying versions of what we refer to as African American culture.

Native Americans share some common racial characteristics and some cultural features, but levels of acculturation to mainstream culture vary dramatically according to geographical location and reservation versus urban or rural residence. For example, Attneave (1982) has pointed out that more than half the American Indian and Alaskan Native populations do not live on reservations, and many may have the reservation as their primary residence while spending much of their time in urban areas for purposes of employment or education. These peoples represent more than 500 tribes or nations (Harrison, Wilson, Pine, Chan, & Buriel, 1990) and more than 149 languages (Red Horse, 1988).

These tremendous within-group variations underscore that the use of any classificatory term is a gross generalization imposed by the dominant society, not by minority groups themselves. This fact leads to the second reason that classificatory terminology is sensitive: for many groups, there is a continuing tension between what group members prefer to call themselves and what society calls them. Any groups who have experienced prolonged and official stigmatization or rejection by the dominant society will, at some point, reject the names that have been applied to them, since those names usually have accrued derogatory connotations. This is most evident among African Americans, who have, within this century, rejected terms like Negro and Colored in favor of Black, and, more recently, have favored African American because of its emphasis on cultural roots. However, the term is not meaningful to many non-American Blacks since it specifies a national origin that they do not share. Further, even within the African American community, preference for one or the other term varies. The same applies to native peoples' attitudes to Native American versus Indian, and to Asian peoples attitudes to the term Oriental, which, currently, is seen by many as a negative term. Among Hispanics, the term Latino is preferred by many. Further, among all the immigrant groups, there is a strong tendency to use national designations, such as Puerto Rican, Ecuadorean, Korean, Filipino, and so on, rather than an umbrella term.

Finally, the attempt to classify these heterogenous peoples by race is not only inaccurate but is offensive to many, especially immigrant peoples for whom the American categorical view of race is meaningless. A resistance to accepting these categorizations can also be intensified if the category to which a person is assigned carries low status in the United States: for example, many West Indians of mixed race have not been accustomed to being categorized as Black (Brice, 1982). Even the term "people of color", which has become a term of choice for many, has been objected to by some Hispanic and Asian people (anecdotal information only). For many Hispanics, in particular, the term may be inapplicable since many are Caucasian.

This report will use, interchangeably, the terms Black and African American, Hispanic and Latino, and Native American and Indian, since they all seem to have some acceptability in these communities. The term Asian will be used as it is used by the Department of Education, with the understanding that it connotes only a broad geographical commonality.

The Purpose of This Report

The opening paragraphs of this report assert the continuing fact of disproportionate representation of minority groups in special education programs. One implication of these facts is clear: If school districts continue to turn to special education as a solution to the difficulties of minority students, then special education could become a central aspect of, rather than a small corollary to the general education system in certain areas of the U.S. in the twenty-first century. An example is Baltimore City, where almost a fifth of all students were placed in special education programs in 1988 (Maryland State Department of Education, 1988).

The way special education is currently conceptualized, a continuation of this trend would mean that an increasingly large proportion of the student body would be designated as having disabilities. The concept of disability essentially reflects the belief that, for whatever reason, there is a deficit within the student: The individual has a condition that is detrimental to his/her overall development, mastery of academic learning, ability to produce language, or to behave in socially acceptable ways. The vision of increasingly large numbers of the nation's population being designated "disabled" is clearly counter-intuitive and suggests the need for careful consideration of alternative hypotheses to explain the high rates of special education placement.

The purpose of this report is to provide a synthesis of the current knowledge and theoretical positions concerning the disproportionate representation of minorities in special education. The report is not intended to provide a complete and exhaustive review of the literature, but to highlight the problems, dilemmas, and relevant issues. Indeed, there are several areas in which an in-depth examination is beyond the scope of this paper, and the reader is encouraged to seek the many sources cited in the references. Although the focus will be on literature from special education, broader educational concerns will be addressed through literature related to regular education and to the educational system as a whole.

The report is divided into four broad sections: An overview of the position of minority students in the nation's education system as a whole; a definition and summary description of the pervasiveness and patterns of disproportionate placement; an outline and discussion of the various explanations or interpretations that have been offered for this phenomenon; and a section with recommendations.

II. ETHNIC MINORITY STUDENTS IN THE U.S.: THE NATIONAL PICTURE

For the school year 1990-1991, the National Center on Education Statistics (NCES) collected and reported data on the racial/ethnic composition of public schools in 43 States. (NCES did not cite data for the seven States with less than 70 percent of schools reporting.) The States with the highest percentage of students from particular racial/ethnic groups are shown in Table 1.

Table 1
States with Highest Percentage of Specific Racial/Ethnic Groups

Racial/ethnic group	State	Percentage
American Indian/Alaskan Native	Alaska	22.3
Asian/Pacific Islander	Hawai'i	72.0
Black/Non-Hispanic	Mississippi	50.7
Hispanic	New Mexico	44.8

Source: McDowell, L. (1992). *Public Elementary and Secondary Schools and Agencies in the United States and Outlying Areas: School Year 1990-91 (NCES 92-031).* U.S. Department of Education, National Center for Education Statistics.

The State with the second highest percentage of students from the Asian/Pacific Islander ethnic group was California with 10.6 percent. California also had the second highest percentage of students of Hispanic ethnicity with 34.4 percent. The racial/ethnic composition of students in the District of Columbia during the 1990-91 school year was also reported: 89.8 percent of students were Black/Non-Hispanic; 5.2 percent were of Hispanic ethnicity; 3.9 percent were reported as White/Non-Hispanic; and 1.1 percent were reported as being from the Asian/Pacific Islander ethnic group.

These figures attest to the considerable variation in the cultural and ethnic diversity among States, but considerable variation also exists within States. Districts in urban areas are likely to have higher concentrations of students from some ethnic groups than are districts in rural areas. Districts in the southern part of a State may differ in racial/ethnic composition from local school districts in the northern part. Therefore, proportional comparisons between percentages of students from particular ethnic or cultural groups are more appropriately made at the district level.

In any event, not all of the estimated 47.6 million public school students fare equally well. NCES reports that Hispanic dropout rates are about three times those of non-Hispanic students. African American dropout rates have decreased, but African American students are still more likely to dropout than their White counterparts (NCES, October 1992). A recent Census Bureau report indicated that an increasing percentage of African American youth are graduating from high school and entering college (Blackledge, 1992). Nevertheless, graduation rates are still lower than those of Whites, and nearly twice as many Whites as African Americans held college degrees in 1990. According to the Census Bureau report, American Indians showed improvement in high school graduation rates for those 25 and older, increasing from 55.5 percent in 1980 to 65.5 percent in 1990. Graduation rates for Hispanics increased from 44 percent in 1980 to 49.8 percent in 1990 (Blackledge, 1992).

For youth who do remain in school, there is still considerable variation among racial and ethnic groups in student achievement. Kaufman, Bradby, and Owings (1992) reported that African American and Hispanic students from a nationally representative sample were more likely to perform below basic proficiency levels in mathematics and reading. According to Hafner, Ingels, Schneider, Stevenson, and Owings (1990) about 30 percent of Hispanics, African Americans, and American Indians scored below basic proficiency levels in mathematics and reading relative to 20 percent of the general school population.

Discrepancies also exist in higher education. Hodgkinson (1992) reported that African American males make up 6 percent of the general population but only 3 percent of college student enrollment. NCES reported that the number of bachelor's degrees among Blacks has increased slightly since 1980-81, but college enrollment for African Americans still lags behind the general population. Similarly, a study of doctorate recipients showed that African Americans, Hispanics, and American Indians earned more doctorates from 1979 to 1984, but the percentage of persons from these racial/ethnic groups earning doctorates lagged behind the percentages of Whites and Asian Americans (Chan Kopka, 1992).

The documentation exists to establish that the educational process leads to disproportionately low results for many students from different ethnic/racial groups. One result of low achievement is special education placement, since the majority of students identified as having mild disabilities begin in regular education and are later referred to special education. A smaller proportion of students are identified before, or at the very start of, the formal education process. The pervasiveness and patterns of special education placement will be the focus of the following section.

III. DISPROPORTIONATE REPRESENTATION OF MINORITY STUDENTS: PERVASIVENESS AND PATTERNS

Background

Concerns regarding the disproportionate representation of minorities in special education pre-date the Federal special education law. The passage in 1975 of the Education of All Handicapped Children Act (EHA), now the Individuals with Disabilities Education Act (IDEA), requires that the assessment process be nondiscriminatory in nature and that the instruments employed be free from cultural or racial bias. Section 504 of the Rehabilitation Act of 1973 also requires nondiscriminatory testing procedures. The inclusion of these requirements in these statutes reflected the already growing awareness of the existence of disproportionate placement. Indeed, the phenomenon was first brought to the attention of the educational research community through a paper by Dunn (1968) who pointed to the high rates of placement of African American students in classes for the educable mentally retarded in California.

This section offers a brief summary of the most influential litigation in the issue of disproportionate representation. The role of assessment will be discussed in more detail in Section IV:2.

Litigation

Litigation in the 1960s reflected increasing concern with discriminatory educational practice. Prasse and Reschly (1986) pointed out that there had been considerable resistance to the court-ordered desegregation initiated by *Brown v. the Board of Education* (1954). They also noted charges that districts using special education classes as a cover for segregation had already surfaced in San Francisco by 1965. In 1971, *Johnson v. the San Francisco Unified School District* charged that special education classes were being used in this way, and within that same year, the plaintiffs in the now famous case of *Larry P. v. Riles* first filed suit, accusing a San Francisco school district of discrimination against five African American children who had been placed in classes for the "educably mentally retarded (EMR)" (Prasse & Reschly, 1986).

Cultural bias in assessment. *Larry P.* was the first of a series of cases alleging cultural bias in the assessment process. At the time, there was ample evidence of the overrepresentation of minorities in programs for the Educable Mentally Retarded (EMR). In the district involved in the case, approximately 29 percent of the student population was African American, while 66 percent of students in the EMR classrooms were African American. Similarly, in the State as a whole, approximately 10 percent of students were African American, while 25 percent of students in the State's EMR classrooms were African American.

After a series of injunctions and appeals, Judge Peckham's landmark decision on the case was issued in 1979. A summary of the lengthy process of this law suit is offered by Dent, Mendocal, Pierce and West (1991). The central results of the litigation were the findings that, "IQ tests were culturally biased and had not been validated for the purposes for which they were being used, placement of Black children in EMR classes" (Dent et al., p. 194), and that the testing process in California revealed an "unlawful segregative intent" (Dent et al., p. 194). The judge issued a ban on the use of IQ tests for Black students for the purpose of special education placement, and ordered that the State monitor and eliminate overrepresentation of Black students in classes for the Educable Mentally Retarded. In Judge Peckham's view, since a valid intelligence test would not exhibit any mean differences among ethnic groups, the placement of minority groups in special education should be proportional to their percentage in the general population.

Judge Peckham's findings have not gone unchallenged. Some scholars, (for example, Prasse and Reschly, 1986; Reschly, 1988, 1991; Sandoval, 1979), have argued that IQ tests have not been shown to be biased and that testing is not the primary issue in overrepresentation. Further, similar court cases have been decided in the opposite way. In Illinois, *PASE v. Hannon* (1980), dealt with many of the same issues of disproportionate representation and bias in intelligence testing as were addressed in the *Larry P.* case. The judge, however, came to the opposite conclusion, that intelligence tests were not biased, and that the procedural safeguards afforded by P.L. 94-142 were substantial safeguards against misplacement of minority students in special education. *Marshall et al. v. Georgia* (1984) dealt with similar charges and was decided in favor of the school district (see Reschly, 1991).

Recent developments on the issue of IQ testing point to the complex and controversial nature of the testing, identification and placement issue. The *Larry P.* ban on intelligence testing for special education placement was recently challenged in the *Crawford v. Honig* case (cited by Robinson, 1992), in which nine African American parents wanted their children tested for possible learning disabilities. This case was decided by Judge Peckham, who lifted the ban (NASDSE, 1992), saying that the use of IQ tests for remedial purposes would be acceptable, whereas the focus of the earlier *Larry P.* litigation was the resulting "dead end programs" into which students were being placed.

Linguistic bias in assessment. The issue of discriminatory assessment has also been related to language. The *Diana* (1970) case in California, on behalf of Spanish-speaking children, and the *Guadalupe* case in Arizona (1972), on behalf of both Hispanic and Native American children, charged that placement decisions were made on the basis of inappropriate English language testing. In both cases the school districts agreed to reforms that included decreased emphasis on IQ tests, the inclusion of tests of adaptive behavior, and the use of nonverbal tests with students whose first language was not English (Reschly, 1988).

Data from the Office for Civil Rights

In the 25 years since the beginning of this controversy, the fact of disproportionate placement has continued. The U.S. Department's Office for Civil Rights biennial summaries of proportions of students by ethnic group in special education programs have provided continuous data on this phenomenon. By the end of the 1970s, the issue was of such importance that OCR commissioned a study of the topic, which was carried out by the *National Academy of Sciences' Panel on Selection and Placement of Students in Programs for the Mentally Retarded*. The outcome of this study was a report edited by Heller, Holtzman and Messick (1982), which will be referred to in some detail in the following section.

OCR Survey Limitations

A detailed analysis by Finn (1982), one of the members of the National Academy Panel, pointed out certain limitations in the survey technique used by OCR. For example, generalization from the OCR sample to the general population is problematic since the survey did not utilize a truly random sample and did not impose checks on the accuracy of the data. Further, the OCR surveys have utilized different sample sizes; Chinn and Hughes (1987) point out that the sample size in 1984 was less than one half of the size of the 1978 sample. Another difficulty is that the OCR does not always present projected data for States, as in the figures for 1990 (U.S. Department of Education, 1993), when projections were made only for the national figures, while raw data were presented for the States. This is a very important concern, since the nationally aggregated data may not reveal the vast differences among States (see, for example, US. Department of Education, OCR, 1987, where national versus State discrepancies can be clearly seen).

These flaws suggest that some caution must be exercised in using the OCR data. Nevertheless, the data provide a comprehensive national picture that is unavailable elsewhere. Further, the bi-annual summaries from 1978 to 1990 consistently display evidence of minority disproportionate representation, despite fluctuating patterns among groups and disability categories. (This feature will be addressed more specifically in Section III:1).

Confirming Discriminatory Practice

The question of whether instances of disproportionate representation reflect discriminatory practice has been harder to affirm than the fact of disproportionate placement itself. OCR, in fact, has only confirmed two cases of race discrimination in special education placement (Hoff, 1992), and is currently exploring ways to improve its methods of determining reasons for instances of disproportionate representation. One difficulty is that examining placement decisions on a case-by-case basis is time consuming and costly, and it is politically problematic to "second guess" team decisions on individual children.

Another difficulty lies in assessing what would constitute equitable treatment among groups of children. For example, Reschly (1988) has suggested that the key indicator would be:

> ...whether minority and White students with the same academic or behavioral problems are treated differently in the placement process...If equal treatment can be demonstrated and the programs are effective, then minority disproportionate representation, in our view, can be defended on both legal and ethical grounds. (p.46)

While this appears to be a sound approach, the question must still be asked whether identical treatment of different children necessarily constitutes equitable treatment. For example, if a Black and a White child are each given the same IQ test, and the IQ test is biased in favor of the language, culture, or life experience of the White child, then using the same instrument is not equitable. The same argument can be applied to any assessment instrument, such as achievement tests or adaptive behavior scales; these instruments certainly test the current level of performance of both children, but the reasons for differential performance cannot be ascertained through this apparently equal process. Understanding the reasons for performance on these tests is critical, since the assessment process purports to be identifying disabilities. Similarly, knowing that both children were referred to special education for behavioral problems would not ensure that treatment was equitable unless we knew exactly what behaviors were considered problematic, and whether the behavioral norms being used took into account different behavioral customs in the cultures and experiences of both children.

Analysis of the OCR Figures

The OCR data have provided the base for most investigations of the phenomenon of overrepresentation. Two direct analyses of these data will be summarized here, but relevant interpretations by other scholars will also be included.

To date, the most comprehensive analysis of the OCR data has been offered by the National Academy Panel (Heller et al., 1982) referred to above. Two aspects of this report are particularly salient for our discussion: First, the report revealed distinct, though complex, patterns of overrepresentation; second, the authors did not assume that overrepresentation is in itself a problem, but rather sought to identify those conditions under which it should be considered problematic. The latter consideration will be addressed at some length.

Patterns of Placement

This section will summarize the patterns of placement as identified by the OCR and as analyzed by Heller et al., in 1982, and by Chinn and Hughes in 1987. In the absence of any published analysis since that time, the present author will offer a cursory examination of some of the trends evident in the more recent OCR data.

Patterns identified by the National Academy Panel (1982). Finn (1982) offered an analysis of the patterns of placement that revealed the immense complexity of the data and the statistical sophistication needed to adequately interpret it. Despite this complexity, the following clear trends and implications were identified:

- **Variability by minority group:** Placement rates varied according to minority group: Black students showed a "pattern of noticeably higher EMR placement rates... on a nationwide basis, especially in the South and in particular States in the border and western regions" (p. 367). Hispanic students, on the other hand, while showing no disproportion at the national level, were seen to be disproportionately placed in Arizona, Colorado, New Mexico and Texas, especially in districts with high Hispanic enrollment. Generally, Native Americans did not show disproportionate placement in EMR programs except in Alaska, where disproportion was particularly high. Asian or Pacific Islanders were generally underrepresented in EMR programs, although small disproportions were noted in certain districts in Colorado and Nevada. Here Finn observed that there was no information as to whether these may have been specific national groups within the "Asian" umbrella.

- **Variability by State and district:** The tremendous variability among States and among districts within a State indicated that it is meaningless to examine this data at the national level. The data must be disaggregated to be informative.

- **Variability by size of program:** Finn referred to the "availability phenomenon", in which the larger the size of the EMR program existing in a district, the greater was the disproportionate placement of minority groups.

- **Variability by socioeconomic status:** The data showed a general tendency for greater disproportion to occur in lower SES school districts.

- **Variability by size of district and minority enrollment:** Overall, in districts of all sizes, there was an increase in disproportionate placement as minority enrollment increased from 0 to 50 percent. More specifically, however, rates of disproportionate placement showed the following distinct patterns according to size of district and percentage of minority student enrollment: (a) smaller districts, with less than 3,000 students, showed a pattern of low minority special education placement when the minority population was less than 10 percent, a steady increase in disproportion as the minority population rose from 10 percent to 70 percent, followed by a peak of very high disproportion as the minority enrollment exceeded 90 percent; (b) districts with 3,000-30,000 students showed a pattern of "low positive disproportion" when the minority population was less than 10 percent, a steady increase in disproportion as the minority population rose to 70 percent, and a reduction in disproportion as the enrollment rose above 70 percent; (c) the largest districts (over 30,000) showed the opposite pattern, in which minority disproportion was highest with small minority enrollment (less than 10 percent), and decreased as minority enrollment increased.

Patterns identified by Chinn and Hughes (1987). Chinn and Hughes (1987) analyzed data from national OCR surveys from 1978-1984. In their analysis, these authors compared the percentage of ethnic/racial groups in special education with the percentages of these groups in the general population. Chinn and Hughes defined disproportion as a percentage which exceeded plus or minus 10 percent of the percentage that would be expected on the basis of the school-age population. For example, if African Americans were 15.72 percent of the general school enrollment, then one would expect the special education enrollment to fall within a range of plus or minus 1.57 of the 15.72 figure; hence, any special education placement percentage outside of the range from 14.15 percent to 17.29 percent would be considered disproportionate.

These researchers found variable patterns according to minority group. Hispanics were found to be underrepresented in "EMR" classes, severely emotionally disturbed classes and speech impaired programs; however, this group was found to be overrepresented in LD programs in the years 1980, 1982 and 1984. Blacks were found to be overrepresented in classes for the educable and trainable mentally retarded as well as the seriously emotionally disturbed (SED) in all years examined; however, this group was found to be roughly proportionate in LD classes in 1982 and 1984. American Indians were found to be overrepresented in EMR and LD classes, but proportionately represented in TMR and SED classes. Asians were underrepresented in all categories except for classes for the gifted and talented in which they were overrepresented. Other than Asians, all ethnic groups were underrepresented in classes for the gifted and talented. With regard to Whites, Chinn and Hughes stated that "The disproportionately low representation of Whites in special education classes makes the overrepresentation of minority students seem all the more striking" (p. 44).

Chinn and Hughes' analysis, however, is severely limited by two factors. First, their reliance on national aggregated data excludes the important differences that exist among States. The findings on Hispanics and Native Americans is particularly misleading since overrepresentation of these groups is dramatically evident in States where these students constitute a large proportion of the school population (U.S. Department of Education, 1988, 1993). Second, it seems that these researchers used the reported figures (ie: raw data) of the OCR's national summaries, rather than the adjusted figures usually estimated by OCR. This limits the reliability of the findings, since the samples were clearly not representative of overall national racial proportions; for example, Chinn & Hughes used a reported percentage of 23.65 for Blacks in the total enrollment for 1984, whereas the OCR's projected national estimate for 1986 was only 16 percent, (U.S. Department of Education, 1988).

Patterns of placement in 1986 and 1990. The most recent data from OCR are from the survey for 1990, published in 1993. The following observations are offered by this author, based on an examination of the OCR data for 1986 and 1990 (U.S. Department of Education, 1987 & 1993).

Two caveats are important: First, since the OCR did offer projected estimates for the States in 1986 but not in 1990, trends shown in the 1990 State figures must be viewed with caution, since they are based on reported and not projected data. Thus, Table 2 compares only national data for 1986 and 1990, in order to show that the national trends have not changed. Table 3 displays data for both States and the nation in 1986.

Table 2
Percentage of Students in Disability Categories by Race, 1986 and 1990

	NATION									
	American Indian		**Asian**		**Hispanic**		**Black**		**White**	
	1986	1990	1986	1990	1986	1990	1986	1990	1986	1990
Total Enrollment in School System	1	1	3	3	10	12	16	16	70	68
Special Education Classifications:										
Gifted & Talented	0	1	5	6	5	6	8	8	81	79
Educable Mentally Retarded	1	1	1	1	5	8	35	35	58	56
Trainable Mentally Retarded	1	1	2	2	10	20	27	32	60	46
Speech Impaired	1	1	2	2	8	9	16	16	73	73
Severely Emotionally Disturbed	1	1	0	1	7	6	27	22	65	71
Specific Learning Disability	1	1	1	1	10	11	17	17	71	70

Source: adapted from U.S. Department of Education Office for Civil Rights, Survey of Elementary and Secondary Schools, 1986 and 1990.

Table 3
Percentage of Students in Disability Categories by Race

NATION

	American Indian	Asian	Hispanic	Black	White
Total Enrollment in School System	1	3	10	16	70
Special Education Classifications:					
Gifted & Talented	0	5	5	8	81
Educable Mentally Retarded	1	1	5	35	58
Trainable Mentally Retarded	1	2	10	27	60
Speech Impaired	1	2	8	16	73
Severely Emotionally Disturbed	1	0	7	27	65
Specific Learning Disability	1	1	10	17	71

ALABAMA

	American Indian	Asian	Hispanic	Black	White
Total Enrollment in School System	1	0	0	37	62
Special Education Classifications:					
Gifted & Talented	0	1	0	11	88
Educable Mentally Retarded	0	0	0	65	35
Trainable Mentally Retarded	0	0	0	57	43
Speech Impaired	0	0	0	36	64
Severely Emotionally Disturbed	0	0	0	31	69
Specific Learning Disability	0	0	0	27	72

ALASKA

	American Indian	Asian	Hispanic	Black	White
Total Enrollment in School System	25	3	2	4	66
Special Education Classifications:					
Gifted & Talented	15	4	0	2	79
Educable Mentally Retarded	44	3	2	4	47
Trainable Mentally Retarded	35	2	0	0	63
Speech Impaired	33	2	1	5	59
Severely Emotionally Disturbed	26	1	1	7	65
Specific Learning Disability	38	1	1	7	53

ARIZONA

	American Indian	Asian	Hispanic	Black	White
Total Enrollment in School System	6	1	26	4	62
Special Education Classifications:					
Gifted & Talented	3	3	12	2	80
Educable Mentally Retarded	6	0	35	12	46
Trainable Mentally Retarded	7	1	27	7	58
Speech Impaired	6	1	27	3	63
Severely Emotionally Disturbed	5	1	16	6	73
Specific Learning Disability	8	0	30	5	57

CALIFORNIA

	American Indian	Asian	Hispanic	Black	White
Total Enrollment in School System	1	9	27	9	54
Special Education Classifications:					
Gifted & Talented	0	15	12	5	68
Educable Mentally Retarded	1	4	35	19	41
Trainable Mentally Retarded	0	8	32	15	45
Speech Impaired	0	6	27	9	57
Severely Emotionally Disturbed	0	3	16	18	63
Specific Learning Disability	1	3	28	13	56

HAWAI'I

	American Indian	Asian	Hispanic	Black	White
Total Enrollment in School System	0	72	2	2	23
Special Education Classifications:					
Gifted & Talented	0	71	1	1	27
Educable Mentally Retarded	0	80	2	2	16
Trainable Mentally Retarded	0	74	0	1	25
Speech Impaired	0	66	3	3	27
Severely Emotionally Disturbed	1	59	5	2	33
Specific Learning Disability	1	69	4	2	34

NEW JERSEY	American Indian	Asian	Hispanic	Black	White
Total Enrollment in School System	0	3	11	17	69
Special Education Classifications:					
Gifted & Talented	0	5	4	10	80
Educable Mentally Retarded	0	1	14	39	46
Trainable Mentally Retarded	0	3	14	29	55
Speech Impaired	0	3	12	14	72
Severely Emotionally Disturbed	0	0	10	30	59
Specific Learning Disability	0	1	10	19	71

NEW YORK	American Indian	Asian	Hispanic	Black	White
Total Enrollment in School System	0	3	12	17	68
Special Education Classifications:					
Gifted & Talented	0	6	8	14	71
Educable Mentally Retarded	0	1	4	22	72
Trainable Mentally Retarded	0	1	5	31	62
Speech Impaired	0	1	4	8	87
Severely Emotionally Disturbed	0	0	18	53	29
Specific Learning Disability	0	0	3	9	87

Source: adapted from U.S. Department of Education Office for Civil Rights, 1986 Survey of Elementary and Secondary Schools.

The narrative below does comment on apparent State trends in the reported data for 1990. Second, it is emphasized that these observations do not constitute a comprehensive analysis. Rather, the author examined the national data and the data for selected States to see if some of the trends identified by the National Academy Panel in 1982 were still evident, and to note any other obvious changes. Specifically, four patterns were evident:

◆ **Overrepresentation of Black students:** Black students continued to be overrepresented in special education programs at both the national and the State levels. Table 2 shows that, at the national level in both 1986 and 1990, OCR's projected estimates for both years revealed continuing overrepresentation of Black students in EMR, TMR, and SED programs, but not in LD and SI programs. Table 3 shows that, at the State level in 1986, the category of choice for Black students varied from State to State and the rate of overrepresentation tended to be greater where their numbers were larger.

◆ **Discrepancy between aggregated data and State data for Hispanic and Native American students:** Table 3 shows that, in 1986, while national aggregated data did not indicate disproportionate representation of Hispanic and Native American students, the data for certain States did. As Finn observed in 1982, disproportion for these two groups tended to be more evident in States where they represented a larger proportion of the school population. In 1990, the reported figures also showed this trend for Native Americans: For example, in Alaska, Native American students accounted for 12 percent of the total enrollment, but 19 percent of EMR classes, 25 percent of TMR classes, and 23 percent of SED classes; a similar pattern was shown in North Dakota, South Dakota and Montana. The pattern was more variable for Hispanic students, however; for example, overrepresentation was evident in Arizona, where Hispanics accounted for 24 percent of the total enrollment, 31 percent of EMR, and 30 percent of TMR classes; in California, however, where Hispanics represented 38 percent of the total, this group was proportionately represented in all disability categories except SED, where they were underrepresented.

◆ **Increasing overrepresentation in the TMR category for Black and Hispanic students:** Table 4 shows that, in the national data for 1986 and 1990, the only category showing overrepresentation of Hispanic students was Trainable Mentally Retarded (TMR), in which the percentage had doubled between 1986 and 1990, although these students' total enrollment had only increased from 10 to 12 percent. The table also shows that overrepresentation of Black students in the TMR category has been a continuing problem since 1980.

◆ **Underrepresentation in the gifted and talented category:** Black, Hispanic, and Native American students continued to be underrepresented in the gifted and talented category, both at the national level and across States.

Although the 1990 raw data for States must be viewed tentatively, a couple of additional factors seem worth noting. There was one State that stood in contrast to the usual pattern for Black students - Massachusetts - where these students accounted for 12 percent of the total enrollment and were not overrepresented in any disability category. Another interesting feature in that State was the rare occurrence of roughly proportionate representation (12% vs. 11%) of Blacks in programs for the gifted and talented.

One anomalous finding not noted in the foregoing analyses of OCR data is the unusual overrepresentation of Asian students in Hawai'i in the projected data for 1986: While these students represented 72 percent of the total enrollment, they represented 80 percent of the enrollment in EMR classes. A similar pattern was evident in the most recent figures reported for 1990 in Hawai'i. Information from the Hawai'i State Board of Education suggests that the overrepresentation is largely accounted for by high rates of enrollment of Native Hawaiian students (counted as Asian) in special education programs (personal communication, Hawai'i State Department of Education).

Table 4
Percentage of Racial/Ethnic Groups in the Total School Enrollment and in the Trainable Mentally Retarded Category
1980, 1986, 1990

Racial Group		1980	1986	1990
African American	Total	16	16	16
	TMR	28	27	32
American Indian	Total	0.8	1	1
	TMR	0.9	1	1
Asian	Total	1.9	3	3
	TMR	1.2	2	2
Hispanic	Total	8	10	12
	TMR	8	10	20
White	Total	73	70	68
	TMR	63	60	46

Source: adapted from the U.S. Department of Education, Office for Civil Rights Elementary and Secondary School Civil Rights Surveys, 1982, 1987, and 1993.

The current picture remains to be analyzed, and OCR has advised this author that the figures for the 1992 survey will be projected for all States, which will give a more reliable picture of the entire situation. One fact remains undisputed: for Black students, continuing overrepresentation in EMR, TMR and SED programs exists across the nation.

Data from the National Longitudinal Transition Study of Special Education Students

Findings from the National Longitudinal Transition Study of Special Education Students (NLTS) (OSEP, 1990) provide another view of the demographic characteristics of the national special education population. The NLTS study, sponsored by the Office of Special Education Programs (OSEP), began tracking a nationally representative sample of over 8,000 secondary aged special education students in 1985-86 school year (Fourteenth Annual Report, 1992). Because the NLTS is a nationally representative sample, it provides a unique demographic profile of secondary age youth with disabilities. Disproportionate special education placement was evident on a number of dimensions.

First, secondary school students in special education were disproportionately male (though not the focus of this paper, this feature was also evident in the OCR data). Approximately 68.5 percent of all youth with disabilities were male, and substantial disproportion existed in specific learning disabilities (73.8%) and serious emotional disturbance (76.4%). Gender disproportion in other categories of disability ranged between 50 and 60 percent, and only in the category of deaf-blindness did the percentage of males (49.5%) approach the percentage of males in the general population (49.7%).

The youth in the NLTS sample were also much more likely to live in a single parent or poor family than were the youth in the general school population. Nearly two-thirds of youth with disabilities lived with families whose household income was less than $25,000 per year compared with 55 percent of youth in general. Also, educational attainment was generally lower in the families of youth with disabilities, with 23 percent of these heads of households reporting some college coursework as opposed to 35 percent in the general population.

The NLTS data (Table 5) are consistent with the OCR surveys, that African American youth were disproportionately represented in the categories of mental retardation, seriously emotionally disturbed, and speech and language impaired. However, of particular significance in the NLTS findings is that African American children were also disproportionately represented in all other categories of disability with the proportion reaching 25 percent for visually impaired and 24 percent for deafness. Youth from Hispanic groups were underrepresented in all categories of disability except other health impairments. Since OCR does not collect any data on these "non-judgmental" categories, these data are of real significance.

The picture emerging from the NLTS survey does confirm OCR's nationally aggregated data regarding African American and Hispanic youth. However, these data suggest the need to question our assumptions that overrepresentation occurs only in the "judgmental" categories and consider why the representation is also so discrepant among non-judgmental categories.

Is Disproportionate Placement a Problem?

The foregoing sections attest that varying patterns of overrepresentation continue to be experienced by African American, Hispanic, and Native American students in the U.S. The variability among States and disability categories indicates that there can be no simple reason for disproportionate placement of students from particular groups. Rather, it suggests that a number of complex dynamics militate against students from three of the four minority umbrellas in the U.S.

The most thorough study of this phenomenon, that of the National Academy of Sciences' Panel (Heller et al., 1982), directly addressed the question of whether or not disproportionate placement should be considered a "problem". This question is important since the argument can be made that disproportion in placement does not necessarily reflect bias, but rather disproportionate difficulties experienced by certain groups of students. This question has also been addressed directly by Reschly, a leading scholar on the issue of disproportionate representation. While there are many scholars who have addressed the issue of disproportionate representation, the work of these two parties most directly addresses the underlying premise that the issue is problematic. Thus, a consideration of the arguments of both these parties will be

Table 5
Selected Demographic Characteristics of 15-20 Year Olds in the General Population[1] and With Disabilities[2]

		Youth with Disabilities											
	General Population	All Conditions	Learning Disabled	Emotionally Disturbed	Speech Impaired	Mentally Retarded	Visually Impaired	Deaf	Hard of Hearing	Orthopedically Impaired	Other Health Impaired	Multiply Handicapped	Deaf/Blind
Percentage of youth who were:													
Male	51.4*** (.6)	68.7 (1.3)	73.2 (1.9)	76.1 (2.2)	59.2 (3.0)	57.8 (2.1)	55.6 (3.3)	53.3 (3.1)	52.5 (3.4)	54.1 (3.3)	55.4 (3.6)	65.3 (3.9)	52.5 (10.0)
N	21,006	7,089	984	686	538	954	779	730	703	671	412	582	50
White	73.0*** (.5)	65.2 (1.4)	67.4 (2.2)	67.3 (2.7)	54.0 (3.4)	60.5 (2.4)	64.2 (3.4)	62.9 (3.2)	64.2 (3.5)	64.5 (3.4)	54.0 (3.8)	66.5 (4.2)	67.0 (10.4)
Black	14.0*** (.4)	23.9 (1.3)	21.3 (1.9)	24.9 (2.5)	28.1 (3.1)	31.2 (2.3)	24.8 (3.0)	23.7 (2.9)	17.0 (2.7)	17.7 (2.7)	20.2 (3.0)	18.9 (3.4)	16.0 (8.1)
Hispanic	6.2** (.3)	8.2 (.8)	8.4 (1.3)	6.0 (1.4)	14.3 (2.4)	5.8 (1.1)	8.4 (2.0)	9.6 (2.0)	14.3 (2.5)	15.0 (2.6)	22.7 (3.2)	11.1 (2.8)	11.7 (7.1)
Other	6.9*** (.3)	2.7 (.5)	2.8 (.8)	1.7 (.8)	3.6 (1.3)	2.5 (.8)	2.6 (1.1)	3.8 (1.3)	4.5 (1.5)	2.8 (1.2)	3.1 (1.3)	3.5 (1.6)	5.3 (4.9)
N	21,006	6,022	830	567	447	730	677	633	626	597	376	497	42
Percentage of youth from households in which head's highest educational level was:													
Not a high school graduate	33.8*** (.6)	40.9 (1.5)	37.6 (2.4)	44.1 (3.0)	46.0 (3.5)	50.4 (2.5)	36.8 (3.4)	33.5 (3.3)	33.9 (3.5)	32.7 (3.5)	36.1 (3.7)	30.1 (4.4)	29.1 (10.6)
High school graduate	37.3 (.6)	35.9 (1.5)	39.1 (2.4)	28.8 (2.7)	28.3 (3.2)	32.2 (2.4)	33.6 (3.4)	37.0 (3.3)	36.6 (3.5)	32.5 (3.5)	28.9 (3.5)	40.3 (4.7)	32.5 (10.9)
Some college	11.5* (.4)	14.2 (1.1)	14.6 (1.7)	18.0 (2.3)	13.0 (2.4)	10.2 (1.5)	15.5 (2.6)	19.3 (2.7)	15.8 (2.7)	17.4 (2.8)	18.5 (3.0)	16.8 (3.6)	19.1 (9.1)
College graduate	10.5*** (.4)	4.7 (.7)	4.5 (1.0)	5.1 (1.3)	5.1 (1.6)	4.1 (1.0)	7.9 (1.9)	5.4 (1.6)	7.2 (1.9)	5.9 (1.7)	9.2 (2.3)	6.7 (2.4)	8.1 (6.3)
Graduate work/ degree	6.9** (.3)	4.3 (.6)	4.2 (1.0)	4.1 (1.2)	7.6 (1.9)	3.1 (.9)	6.3 (1.7)	4.7 (1.5)	6.5 (1.8)	11.5 (2.4)	7.3 (2.0)	6.2 (2.3)	11.2 (7.3)
N	21,006	5,646	772	524	414	678	654	605	615	563	356	428	37

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Note: Asterisks denote significance of differences between the indicated statistic and the comparable figure for "all conditions"; *$p<.05$, **$p<.01$, ***$p<.001$. Standard errors are in parenthesis.

[1] Data for the general population come from the 1979-83 National Longitudinal Survey of Youth. This analysis includes a nationally representative sample of youth who were 15 to 20 years of age when interviewed and were enrolled in secondary school during the current or previous academic year.

[2] Data for youth with disabilities come from the 1987 National Longitudinal Transition Study, which surveyed a nationally representative sample of 15-23 year olds who had been special education students in secondary school in the 1985-86 academic year. In this study, only 15-20 year old youth are included.

Source: How Well Are Youth with Disabilities Really Doing? A Comparison of Youth with Disabilities and Youth in General -- A Report from the National Longitudinal Transition Study of Special Education Students. March 1992, SRI International under Contract from U. S. Department of Education.

a precursor to any further discussion of the topic. Reschly's interpretations will be addressed first, followed by those of the National Academy Panel.

Interpretations offered by Reschly. Reschly has addressed the question of whether or not overrepresentation is problematic on several fronts (1988, 1991). First, he suggests that when figures are viewed as percentages of a total racial group, the fact that only a small percentage is placed in special education makes the issue of overrepresentation less problematic (e.g., the fact that in 1986, the total number of Black students classified in "mildly handicapped" categories was 7.77% as against 5.33% of Hispanic students and 5.73% of White students). However, as mentioned earlier, his emphasis on the fact that there are actually small numbers of all students in special education programs does not in any way mitigate the problematic nature of overrepresentation, since the concept is, by definition, a matter of relative, rather than absolute numbers. Irrespective of which set of figures is examined, it is the relative proportions that are important.

Another approach offered by Reschly is to compare the public's dissatisfaction with special education disproportion to the relative satisfaction with compensatory programs such as Head Start, Chapter 1, and Follow Through. These programs, as he correctly points out, have been predominantly populated by minority students; yet there has been no opposition to this or charges of discriminatory practice. Reschly (1991) posits the following three reasons why disproportionate placement in special education is seen as problematic while the same pattern in other programs is not objected to:

> (a) Chapter 1 and Head Start programs are assumed to be effective; special class programs for students with MMR are assumed to be ineffective; (b) there is considerably greater stigma associated with MMR [mild mental retardation] special classes than with Head Start or Chapter 1 programs; (c) MMR special classes are regarded as permanent placements whereas Chapter 1 and Head Start are regarded as developmental or compensatory programs that enable individuals to do well in normal environments (p. 13)

Overall, Reschly's point is correct, that if special education programs were effective, did not lead to stigmatizing of students, and were only temporary, there probably would be no objection to overrepresentation. The challenge in this argument, however, is to ascertain precisely what aspects of the very complex process of special education placement, as currently conceived, would have to be changed in order to remove stigma, make programs effective, and provide for likely return to regular education. Further, there are some salient differences among these programs that suggest that comparing special education and compensatory programs does not really elucidate the issue.

First, one reason for the high enrollment of minorities in Head Start and Chapter 1 is the income level requirement; the fact that minorities constitute large numbers among the poor is well known, and eligibility for these programs is tied to both low income and low achievement. Thus, "disproportionate" minority placement in these programs would not be surprising. In the case of special education, there is no low-income requirement that could explain the high proportion of minorities; this tends to make disproportionate special education placement suspect. Further, to look more closely at the matter, high minority representation in Head Start or Chapter 1 programs may not represent disproportion as we understand it in special education, since the high numbers have been drawn from a pool of students which is already predominantly minority, that is, the low-income population of the district.

Second, Head Start is a particularly inappropriate point of comparison, since not only is enrollment entirely voluntary on the part of parents, but the mandate that parents be appointed to advisory boards and be given preference in hiring as classroom aides gives them a central place in the program. Special education, despite the mandate for informed parental consent, has no such provisions for parental influence, and tends, rather, to operate in an adversarial climate in which parents who disagree with professional judgements or recommendations must be prepared to engage in legal confrontation of various sorts.

In developing his argument Reschly (1991) has specified seven "implicit assumptions or underlying issues" that have prompted litigation on minority overrepresentation. He presents some of these assumptions as valid and others as not:

1) Inferior educational opportunities provided by MMR programs: Reschly agrees that if the effects of such programs are not demonstrably beneficial, they will constitute a "poor bargain" for all students.

2) The incorrect belief that intelligence tests play a dominant role in placement decisions: Reschly emphasizes that IQ testing is typically utilized "after (NOT before) the development of chronic, severe achievement problems, grade retention, and frequently social-behavioral difficulties leading to referral". (p.14)

3) The belief that these tests are culturally biased: Reschly sees this belief as uninformed, and argues that empirical studies demonstrate that "the overwhelming majority of items on current tests are not biased according to statistical criteria". (p. 14)

4) A deep seated objection to Jensen's (1969) theory that group differences in intelligence account for disproportion: Reschly argues that the *Larry P.* case was influenced by an implicit backlash against Jensen's theory of hereditary inferior intelligence on the part of Black people.

5) The mistaken belief that disproportionate placement meant that a large proportion of Black students were being labeled MMR: Reschly argues that disproportionately high placement of minorities might be "reasonable", given the "known relations between poverty and the prevalence of MMR." (p. 15)

6) The belief that MMR labeling brings deleterious effects and lifelong stigma: Reschly agrees that such stigma is undesirable, especially if there are no demonstrable beneficial effects of MMR placement.

7) Misunderstanding of the meaning of MMR, ie; the belief that MMR implies "comprehensive incompetence, ...identifiable and visible biological anomaly, and lifelong disability" (p.15): Reschly points out that the official meaning of MMR does not include these features.

In sum, Reschly has argued that if the stigmatizing of students, the ineffectiveness of special education programs, and misconceptions about mental retardation could be corrected, overrepresentation of minority students would be acceptable, since the poverty conditions of many minority students provide a reasonable explanation for them to be disproportionately mildly mentally retarded. Reschly believes that the assessment tools are not biased, and, in any case, do not play a primary role in placement. These arguments seem plausible to some extent but are seriously limited by the following considerations.

First, on the question of stigma: there is really no getting away from the fact of stigma in special education as it is currently conceived and practiced. Minority parents' (or any parents') objections to stigmatizing should not be regarded simply as a matter of parental protection of their children. Programs such as Follow Through and Chapter 1 are presented as remedial programs, for which students do not have to go through a formal labeling process that designates them as disabled, nor do they have to be placed in separate classes for their entire school program, as is often the case in special education. The classification of students for special education is formal and official and is treated as a reflection of a student's real and continuing abilities. Yet the validity of the disability classification system is highly questionable. Section III of this report will detail several studies that demonstrate the overlapping and relative nature of classifications such as mild mental retardation, learning disability, and behavior disorder. Further, the cultural basis of these classifications is evident in the different parameters of "normalcy" used by people of different cultures, as will be detailed in Section III:4 of this report.

Second, Reschly's confidence in the appropriateness of assessment tools represents a controversial rather than a proven point of view; this will be discussed in Section IV:2. Similarly, the belief that poverty accounts for overrepresentation in MMR programs is more complex than is readily evident: For example, while students who are poor are likely to be poorly prepared for schooling and to have been exposed to influences detrimental to their development, they may also be more vulnerable to poor instruction prior to special education referral, or to bias in the referral process itself; certainly, they are more likely to attend inferior schools than are middle class children. Thus, it is difficult to know whether it is poverty per se that is the main contributor to these students' performance.

Interpretations offered by the National Academy Panel. The Panel's investigation of the nature of disproportionate placement was somewhat different from the approach taken by Reschly. While Reschly argued that overrepresentation might be reasonable given certain circumstances, the Panel argued that overrepresentation is problematic if the circumstances surrounding it are unfair to students. The authors concluded that if the process is unfair, either in assessment or instruction, then the overrepresentation factor must be treated as problematic. Thus, the Panel focused on identifying those conditions under which it should be seen as problematic, as follows:

> Two key issues are at the heart of the debate about disproportion. First, disproportion is a problem when children are invalidly assessed for placement in programs for educable mentally retarded children. Second, disproportion is a problem when children receive low-quality instruction. This problem may arise in the regular classroom, where opportunities for academic success may be restricted, or in the special education classroom, where a child's educational progress may falter due to lowered or inappropriate expectations and goals. (p. xi)

This formula for examining disproportionate placement implicates the entire process: the quality of instruction prior to referral, the decision to refer, the assessment, placement in a special education program, and the quality of instruction that occurs in that program. This holistic view, with its preventive rather than remedial approach, has been well received by scholars: For example, it has been applied to a model for non-biased assessment developed for the San Francisco Public Schools and reported by Dent (1991). This model proceeds through six steps of: monitoring referrals, assessing referral data, modifying and evaluating the student's current instructional program, assessing the student's home curriculum and his/her learning within that setting, and, finally, assessing the student's learning ability in the regular, modified, and/or clinical setting being proposed.

The formula has also been built on by Reschly (1988) who, as an expert witness for the defendants in the *Marshall* trial, placed his recommendations in a framework of "defending overrepresentation" (p. 45). Despite this posture, his proposals fit well with the formula outlined by Heller et al., (1982). Specifically, he argued for a concerted search for effective alternatives in regular education; assessment reforms that emphasize "social skills and adaptive behavior, direct assessment of academic skills, as in curriculum based assessment, and precise determination of and systematic changes in antecedent, situational, and consequent events" (p. 45). Reschly also proposed that an outcomes criterion, or the effectiveness of the placement process, be the central criterion for whether overrepresentation of minorities is a problem.

In sum, Heller and his colleagues recommended that overrepresentation must be considered to be a problem if the process by which it occurs is biased or inadequate. This is the premise on which several scholars have addressed the issue. In other words, researchers and theorists have asked questions of every aspect of the process, from regular education instruction through referral, assessment and special education instruction. Further, researchers have asked whether characteristics of students themselves, students' families and communities, or characteristics of the society as a whole, also contribute to the phenomenon. The very structure of the school system itself has also been scrutinized for practices or policies that may lead to overrepresentation of minority students in special education programs.

Heller et al., (1982) summarized the potential explanations for the phenomenon of disproportionate representation, as follows:

- Legal and administrative requirements
- Characteristics of students
- Quality of instruction received
- Possible biases in the assessment process
- Characteristics of the home and family environments
- Broader historical and cultural contexts

A great deal has been written about the reasons for this phenomenon, and a search of the literature has shown that all extant arguments can be classified under one or more of the above categories. Consequently, this report will use the Heller et al., framework to discuss the array of interpretations on the topic, although the order of these considerations will be altered.

IV. EXPLANATIONS OF THE DISPROPORTIONATE PLACEMENT OF MINORITY STUDENTS IN SPECIAL EDUCATION PROGRAMS

1. Characteristics of Students: The Meanings of Disability

The construct of disability is the centerpiece of special education. Despite numerous debates as to the validity of the classification system, students continue to be eligible for special education services by virtue of being diagnosed as having a disability. Thus, the implicit assumption is that it is the characteristics of students themselves that account for their need for specialized instruction. This belief is central to the law (EHA/IDEA), which specifies a discrete number of disabilities that may be identified, and calls for experts to classify students and address these disabilities.

In considering the meaning of the overrepresentation of minority students in such programs, therefore, the implication that greater numbers of such students are "disabled" or "handicapped" is inevitable. However, for a number of reasons that will be explicated below, we cannot assume that the classifications used represent objective conditions that exist within individuals.

The exclusive use of the construct of disability as the criterion for receiving services is at the center of much of the controversy about disproportionate representation of minorities. There are two reasons for this: the stigma attached to being designated "disabled", and the potential detrimental outcome of being removed from the mainstream of education and thereby losing the opportunity of "catching up" or returning. In the *Larry P.* case, for example, it was the perceived "dead end" quality of the EMR programs that drove Judge Peckham's decision (NASDSE, 1992). The classification system is, therefore critical.

In view of the perceived consequences, any category of disability ought to clearly reflect a meaningful difference from whatever is considered "normal". In the mild disability categories, however, the basis of observed differences is questionable. In 1973, Mercer made a crucial distinction between those categories of disability that are based on a pathological model as compared to those based on a statistical model. The former, she stated, is a "culture-blind" process, and can therefore "be transferred readily from one society to another and still retain its power to predict and to illuminate" (p. 8). The statistical model, however, "defines abnormality according to the extent to which an individual varies from the average of the population on a particular trait" (p. 4). Mercer argued that the identification of most mild disabilities is based on the statistical model, while using language and concepts borrowed from the pathological model, such as, "etiology, symptom, syndrome, diagnosis, prognosis" (p. 17). As will be observed in the section on assessment, Mercer argued that these categories cannot be considered to objectively represent disability, since they are bound to the parameters of normalcy defined by a given culture.

Although the mild disability categories have been the focus of the disproportionate representation issue, overrepresentation of Black students, and, more recently, Hispanics, in the trainable mentally retarded (TMR) category, (a moderate rather than mild disability), is also notable. The NLTS study also showed high representation of Hispanics in the "other health impaired" category. Although the OCR data have shown this trend for Black students since 1980 (see Table 4), to the knowledge of this author, this fact has received very little direct attention in the published literature. This issue will not be addressed here but some important questions for research on this topic are readily apparent, for example: What criteria are being used for the designation TMR? How uniformly are these criteria being applied across the States? Do the criteria being used reflect more of a clinical/pathological than a statistical model, (as described by Mercer above)? To what extent may social/cultural judgments play a part in the classification? To what extent might this classification reflect health considerations related to poverty and inadequate health care?

In the mild disability classifications, three categories have been particularly suspect, and all three have serious implications for minority students - educable mental retardation (EMR), learning disability (LD), and behavior disorders/serious emotional disturbance (BD/SED). Each of these will be addressed in turn.

Educable Mental Retardation

Early observations of minority overrepresentation focused on the EMR category, since this was the predominant disability classification assigned to Black and Hispanic students. The term mental retardation, however, clearly means different things to different people. A common lay interpretation of this term includes some readily evident and comprehensive intellectual deficit, as well as the belief that the condition is probably innate and permanent. However, the term has not been used this way in the recent official position of the American Association on Mental Deficiency (AAMD). Their most recent definition specifies that the condition is characterized by "significantly subaverage intellectual functioning" existing concurrently with "related limitations" in two or more adaptive skill areas, and manifested before the age of 18 (AAMD, 1992, p. 5). The manual affirms that MR may be due to a variety of etiologies, including psycho-social disadvantage, and does not indicate a permanent "trait", but rather, refers to an individual's "present functioning."

The relativity of what constitutes such functioning, however, is evident in the fact that the AAMD changed the IQ cut-off point for this category in 1973. As Ysseldyke, Algozzine & Thurlow (1992) explained, this change in definition, from one to two standard deviations below the mean on an IQ test, resulted in declassification of many students "simply by a pen stroke of the American Association on Mental Deficiency" (p. 100). Further, the widely acknowledged shift from MMR to LD frequency rates over the years, and the variable use of MMR among States underscores the relativity of these constructs. As Shonkoff (1982) succinctly stated:

> ...the phenomenon of mild mental retardation is primarily a cultural construct. Its very nature has changed dramatically over time, and its contemporary definitions are highly influenced by differences among societies. Within the United States in the past 100 years, arbitrary shifts in diagnostic criteria have moved children in and out of the mildly retarded population. Moreover, as society becomes increasingly complex in its technological demands, new classifications of "defectiveness" will undoubtedly arise. (p. 169)

The argument that mild mental retardation is a reflection of cultural beliefs and attitudes at a given point in time does not deny that differences exist in individuals' cognitive and behavioral competencies. Rather, this perspective emphasizes that the point at which such differences come to be considered deviant, or "abnormal", is a matter of societal definition, and that the classifications given these deviancies will also vary in relation to community standards and conditions (Mercer, 1973).

Indeed, Shonkoff's (1982) observation about "arbitrary shifts in diagnostic criteria" continues to be demonstrated a decade later. Figures presented by Ysseldyke, Algozzine & Thurlow (1992), of what they call "categorical drift," showed the steady movement away from EMR diagnoses toward LD, SI and SED. Their investigation also showed the tremendous variation in placement rates for different categories from State to State: For example, in 1990 -- 1.24 percent of Hawaiian students in special education were classified as SI, as against 4.55 percent of those in New Jersey; although Rhode Island and Alabama were not very different in total special education enrollment (12.92% and 11.56% respectively), MR accounted for only 0.61 percent of Rhode Island's special education population, compared with 66 percent designated LD; in Alabama, meanwhile, the disabilities were more evenly spread, with 3.90 percent designated LD, 3.06 percent designated SI, and 3.39 percent designated MR. Ysseldyke et al. come to a cynical but wholly reasonable conclusion -- that "when students move easily among supposedly distinct groups [they] thereby begin to look like a psychometric Dow Jones average rather than clinical cases" (p. 105).

Learning Disabilities

The learning disability category has been equally controversial, although for different reasons. Research findings regarding widely varying criteria, placement rates, and assessment procedures continue to undermine the perceived validity of the classification. A study by Ysseldyke, Algozzine & Epps, (1983) demonstrated the tremendous overlap between low achieving students and students designated learning disabled. These authors concluded that "the classification LD has been an ill-defined, poorly conceptualized, incredibly popular idea" (p. 165). The "rapid increase in the number of students labeled learning disabled [and the] considerable variance across States in the numbers of student served in this category" (p. 165) were cited, causing suspicion as to the validity of the category. The trend from 1978-1982 was further analyzed by Algozzine & Korinek (1985), who summarized it as follows:

> A yearly increase of approximately 3% in the number of LD students served was accompanied by a yearly decrease of approximately 1% in SI students served and 2% in mentally retarded students served. (p. 391)

Sleeter (1986) has discussed the social processes involved in the creation of the LD category. She examined the racial composition of samples in research studies between 1963 and 1973, and concluded that these samples were "overwhelmingly White and middle class during the categories' first 10 years" (p.50). More recently, the racial composition of LD classes has shifted to include more minority students, and one explanation of the shift in use of this category is its greater social acceptability and more ambiguous criteria (Argulewicz, 1983; Tucker, 1980).

Such concerns about the validity of the LD category were reflected, more recently, in a National Institutes for Health call for proposals (1992) to address the many problems in the field of learning disabilities. In this call, the NIH identified numerous difficulties in LD research, such as the lack of clarity in definition, the absence of information regarding how samples of LD students were identified, the incomparability of research samples because of widely differing criteria, and lack of information regarding students' functioning outside the area deficit. These concerns have plagued the field of learning disabilities ever since its inception.

In the Ysseldyke et al. (1983) study referred to earlier, the authors speculated that, "the same conclusions that we have reached about learning disabilities could be reached for behavior disorders and for speech-and-language disorders [and] the category educable mentally retarded..." (p. 166).

Behavior Disorders

Definitional controversies also plague the field of behavior disorders. Shifts in frequency rates for the classification SED, as well as tremendous variability in placement rates from State to State, call into question the validity of this category (Ysseldyke et al., 1992). Weinberg & Weinberg (1990) challenged the lack of clarity in distinguishing between "socially maladjusted" and "seriously emotionally disturbed." Ysseldyke et al., (1992) summarized research that shows the widespread concern with this and other definitional issues; they concluded that, since there is no generally accepted definition of social maladjustment itself, "the exclusion of social maladjustment from the category of serious emotional disturbance has created significant concern among professionals engaged in special education of students with behavioral disorders" (p. 103).

With regard to classification by racial group, the OCR figures show the usual variability by State. For example, the OCR's reported figures among States for the SED category in the 1986 survey (U.S. Department of Education, OCR, 1988) showed that, in New York and New Jersey, Black and Hispanic students were labeled SED at twice the national rate for their racial group. Nationally, Native American students accounted for 1 percent of the SED category; however, in North Dakota, where overall Native American enrollment was 5 percent, these students accounted for 14% of the SED category. While it can be argued that different placement rates may reflect real differences in students' propensity to behavioral problems, no analysis exists that would explicate geographical social patterns accounting for these differences in special education placement.

Speech Impairment

Once more, the tremendous growth in this category in recent years has been attributed to the subjective nature of the definition. Ysseldyke et al., (1992) note that this has become the most frequent category next to learning disabilities. Like other disability categories, SI can be used as a more acceptable label, yet can also result in inappropriate classification of students whose speech and language differences may be mistaken for deficits.

The OCR summaries for 1986 and 1990 show that SI and LD are the most frequently used categories for White students. Indeed, there have been cases where the overrepresentation of White students in SI is quite dramatic, as in New York, in 1986, where White students accounted for 68 percent of the total enrollment but 87 percent of the enrollment in SI. This pattern would seem to be related to the frequently made observation that this is one of the least stigmatizing labels.

On the other hand, the label may be used inappropriately for students whose first language is not English (Conroy, 1992), or for students speaking a non-standard variety of English, such as Vernacular Black English. Understanding of the distinction between language difference and language deficit is more than two decades old. The early work of Labov (1972) clearly delineated the patterns of Vernacular Black English (VBE), and showed how Black children altered their speech in response to setting and to the presence of peers as opposed to adults. Wolfram (1976) demonstrated the inbuilt bias against VBE speakers, and Bryen (1974) offered a compelling review of literature that showed the explicit biases that existed towards the speech of Blacks in the U.S.. This author clearly explicated the way that phonological, morphological, and syntactical differences between standard and non-standard forms of English could contribute to the mistaken interpretation that Black students were deficient in spoken language, especially given the fact that standardized tests of speech and language were not normed on such speakers and would place them at unquestionable disadvantage. Yet recent research (Adger, Wolfram, Detwyler & Harry, 1992) revealed the continuing use of inappropriate speech and language assessment instruments for speakers of VBE.

EMR, LD, SED and SI: Judgment Calls that Affect Minorities

How difficulties in definition and identification may affect minorities is the central concern of this paper. The subjective and shifting nature of the mild disability classification systems seriously calls into question the validity of these labels for all students, but particularly for the poor and minorities, whose life experiences, early education, language, and behavioral styles make them more vulnerable to inappropriate judgments, than are their White and middle class peers.

Arguments related to the EMR category have revolved, as described above, around the issues of testing and the quality of EMR programs into which students were placed. In learning disabilities, the concerns have been somewhat different. Two main problems with the criteria for LD identification as it relates to minorities have been specified by Collins & Camblin (1983): First, the fact that the definition excludes students whose learning difficulties might be due primarily to "environmental disadvantage" means that the category is likely to exclude poor children. It is well known that minorities constitute large numbers of the poor; hence, minority students with learning difficulties are more likely to receive the more stigmatizing label of MR than LD. Second, the learning disability definition also rests heavily on evidence of a discrepancy between IQ scores and achievement scores; these authors point out that such a discrepancy would more likely be found among students with higher IQ scores. The fact that Black students have been found to score one standard deviation below Whites (Samuda, 1975) means that the Black child is less likely to demonstrate such a discrepancy and, therefore, less likely to qualify for services in a program for learning disabilities.

The BD category has also been charged with discriminating against minority students whose behaviors may differ in significant ways from those considered normative by mainstream professionals. The case of *Lora et al. vs. Board of Education of the City of New York* (1975) charged that Black and Hispanic students were inappropriately placed in segregated special day schools for students with emotional disturbance. The court found that the assessment procedures were inadequate and discriminatory and ordered the retraining of teachers (Wood, Johnson, & Jenkins, 1986).

The cultural relativity of student behavior and teacher judgment is at the center of this controversy. The complexity of the matter is evident in the fact that this relativity may result in either a decrease or an increase in perceptions of disordered student behavior. For example, Carlson & Stephens (1986) have shown that teacher perceptions of ideal student behavior favored the acquiescent style of Mexican children as it appeared in conflict situations, yet the same behavior was seen as inappropriate in classroom behavior; further, this acquiescence resulted in Mexican children receiving fewer ratings of behavioral problems than Anglos. Similarly, Chan & Kitano (1986) suggested that cultural features among some Asian groups could account for under-identification of such children, with genuinely disordered withdrawal behavior being interpreted as culturally induced. By the same token, Anderson (1992) and many others have charged that the behavioral and verbal style of many African American children results in misinterpretation and inappropriate SED classification by mainstream professionals.

While the focus of this report is on disability classification, it is also notable that the issue of student punishment seems to be very much related to racial groupings. The OCR figures for both 1986 and 1990 show that Black students receive corporal punishment at approximately twice the rate of their enrollment in the nation's school systems, and at a greater rate than all other groups. McFadden, Marsh, Price & Hwang (1992), conducted a study of the files of all students receiving any disciplinary action in nine schools in a South Florida school district. The researchers found that Black students "received a disproportionately high rate of corporal punishment, school suspension, and a lower rate of internal suspension than did White students" (p. 144). These researchers found no evidence of more severe reasons for referral among the Black students, and that the reasons for referrals were not for violence or criminal activity. The researchers concluded that "some amount of bias does appear to have existed" (p. 144).

In sum, the assumption that it is the characteristics of students themselves that account for the disproportionate representation of minorities in special education cannot be verified since there is no consensus as to what the characteristics of mild disabilities are. The confusion and controversy surrounding the conceptualization of these classifications undermines the entire process.

2. Biases in the Assessment Process

The issue of how disabilities are conceptualized and identified is inextricable from the issue of assessment. Indeed, one may be considered a corollary of the other. Standardized testing has been used to decide whether a student does or does not have a disability, since this determination is required to be eligible for special education services. However, the results of standardized testing may have no connection to, or influence on, methods of instruction (Ysseldyke, et al., 1992). Rather, the emphasis has been almost entirely on determining eligibility.

Although the focus of the literature is on overrepresentation, the underrepresentation of minorities in programs for the gifted and talented, is, of course of great concern also, and several scholars have interpreted this in terms of biased instruments and lack of cultural knowledge (Bermudez & Rakow, (1990-91; Patton, 1992).

The concern about bias in the assessment process is perhaps the most debated and certainly the most widely publicized aspect of the minority disproportionate representation controversy. Essentially, the question is whether, and to what extent, the actual formal assessment of students is biased in favor of the dominant culture, and therefore places students from ethnic minority backgrounds at a disadvantage compared to White students. This type of bias has been examined in terms of both cultural and linguistic factors.

As outlined in Section I of this report, early litigation regarding the disproportionate placement of minorities focused on this issue. The fact that different courts and different scholars in the field have given opposite opinions on bias in IQ tests emphasizes that, in some quarters, the issue is still moot. This section will first outline the dominant arguments surrounding the notion of test bias, and will then broaden the discussion to include important contextual information.

Cultural and Social Bias Within Tests

The debate as to whether or not tests are biased is difficult to grasp unless one recognizes that there are different ways of interpreting the meaning of bias in a test. Indeed, the categorical assertions of evidence on both sides of the issue leaves one wondering how both sides could be equally confident of such opposing arguments. The following statement by Prasse & Reschly (1986) illustrates the vigorous argument of one side:

> The conclusions of the *Larry P.* court are generally at sharp variance with empirical research (e.g., Reynolds, 1982) and with conceptions of test bias... The issue of test bias was not handled well at all by Judge Peckham in the *Larry P.* decision. Empirical results related to specific questions and conceptions of bias were largely ignored or misconstrued by Peckham" (p. 341).

On the contrary, Hilliard (1992) citing several sources, states:

> Culturally sophisticated observers can explain much of the unavoidable bias in measurement and assessment. The abuses of treatment and assessment in the case of ethnic minorities can also be easily documented. (p. 171).

Technical Versus Holistic Interpretations of Test Bias.

A central issue in the question of test bias is the distinction between what Travers (1982) has referred to as a specialist's versus a non-specialist's view of bias. Travers (1982) states that a technical definition, such as that used by Jensen (1980) separates bias from fairness; from the technical point of view, a test is biased if quantitative indicators of validity differ for different cultural groups. Thus, item analysis, a statistical approach for examining the construct validity of a test, requires statistically significant "item by group interaction", showing that an item on a test deviates significantly from the overall profile for any group, in order for bias to be present. Using this method, researchers such as Jensen (1974) and Sandoval (1979) have found no evidence of test bias.

Other scholars, however, have argued that the assumption that bias can be demonstrated at the level of individual test items is to take too narrow a view of the process. Both Figueroa (1983) and Travers (1982) used statistical methods to show that there may be pervasive depressive effects on test scores; this kind of effect, they argue, would not be demonstrable through the item analysis procedure. Further, numerous scholars have argued that a statistical approach to establishing test validity ignores certain a priori premises of the process of test construction: That the tests inevitably reflect the cultural knowledge base and cognitive orientation of its creators and of the sample on which the items have been standardized. Thus, tests that are standardized on the Euro-American majority, with test items chosen from the cultural experience of this majority, are inevitably biased in favor of that majority and, therefore, against minorities whose cultural learning is distinctly different (Arewa, 1977; Dent, 1976; Flaugher, 1974; Garcia, 1977; Hilliard, 1991; Weiss, 1991; Williams, 1977).

Akin to this is the concept of content validity, that is, that the items should relate well to the objectives to be assessed. However, Samuda (1989) argued that this kind of validity does not affirm that the test is equitable for all takers, since the very choice of objectives reflects the assumption that, "(1) the test takers have been exposed to and are familiar with the universe of information from which test items are drawn; and (2) that the language of the test is the language of the test takers" (p. 28).

Another technical issue is that of predictive validity, which means that IQ tests have been shown to correlate with measures of scholastic success. Thus, supporters of the tests argue for this as a kind of validity. A number of limitations of this argument have been offered: First, this correlation in itself indicates that both sets of tests tap similar information and skills, so that if one were biased against a particular group, so would the other (Hartle-Schutte, 1991). Indeed, as Hilliard (1991) stated, such an association "between two sets of scores (IQ and achievement) is not an explanation of the association" (p. 143); or, as stated by Williams (1974), the content tested by these tests are so similar that "statistical prediction is based on the relationship observed between predictor variables (ability tests) and criterion variables (scholastic performance)." Thus, argued Miller, to use the one to predict the other is to violate "the basic principles of statistical forecasting by predicting from a biased predictor to a biased criterion" (p. 20).

Second, it has been observed that prediction is nebulous rather than precise for any individual child, since the notion of probability is based on the overall probability for large groups (Travers, 1982). Further, Travers pointed out that to argue for IQ tests on the basis of their predictive validity is to assume that prediction about a child's future performance is a valid reason for removing the child from the mainstream. Also, both Travers (1982) and Reschly et al., (1988) have pointed out that IQ tests are not really predictive because of the way they are used; that is, they are typically administered to a child who has demonstrated prolonged and severe learning or achievement difficulties in school rather than at the beginning of the student's educational career.

Going beyond the actual test itself, several scholars have pointed to the influence of testing conditions upon different groups of children. In a review of early research on this topic, Epps (1974) noted a number of subtle psychological variables that, while difficult to demonstrate, seemed to affect the performance of African American students, such as their perceptions of whether they were competing against Whites, their perceptions of the purpose of the test, and the personality, style and gender of the examiner. More recently, Fuchs and Fuchs (1989) conducted a meta-analysis of studies of the effects of examiner familiarity on White, African American, and Hispanic students, and concluded that the latter "scored significantly and dramatically higher with familiar examiners" (p. 306). Travers (1982) and Samuda (1989) also pointed out that a variety of testing conditions could affect the performance of groups of children differentially.

Overall, despite Travers' framing of the arguments in terms of specialists and non-specialists, it is difficult to escape the common-sense logic of numerous scholars whose work has established them as experts in the field of special education over a period of several decades. The essential point made by these scholars is that IQ tests do not test innate ability; rather, they test an individual's learning in a number of areas. Therefore, they are biased by virtue of placing at a disadvantage those students whose cultural and social experiences do not include the kinds of information and skills tested by these instruments. A couple of quotes will illustrate the power of these arguments:

> The formalization and codification of behavioral norms into standardized measures establishes the role expectations and norms of the dominant society as the legitimate canon of acceptable behavior because this group is the overwhelming majority in the population on which tests are normed. Binet tried to choose content for his tests with which all persons would be familiar. However, in a complex, pluralistic society, this is an impossible task. Items and procedures used in intelligence tests have inevitably come to reflect the abilities and skills valued by the American "core culture". This "core culture" consists mainly of the cultural patterns of that segment consisting of White, Anglo-Saxon Protestants whose social status today is predominantly middle and upper class...
>
> To score as intelligent in American society one must be highly verbal in English, adept with mathematical concepts, and facile in abstract conceptualization...We must conclude that the evaluations that produce the definition "mental retardate" for the most part, embody the values of the core culture. (Mercer, 1973, pp. 13-14)
>
> Item content is simply a matter of the arbitrary choices of an in-group of item writers. Certainly the Afro-Americans are poorly represented, if at all. To many Afro-Americans the "norm" is abnormal" (Hilliard, 1977, p. 197).

The heritability of IQ. One of the reasons that IQ tests have become the target of such controversy is that Black students have been shown to perform, on an average, 15 IQ points lower than Whites (Samuda, 1975). This observation gave rise to speculation that differential innate intelligence accounted for these group differences. Using IQ scores as a measure of intelligence, Jensen (1969) argued that racial inferiority is the likely explanation for this difference.

This argument, and the overall framework of intelligence testing which supports it, were promptly and vigorously countered in several scholarly forums, such as special issues of the *Negro Educational Review* in 1977 (Dixon, 1977) and 1987 (Hilliard, 1991), and in numerous publications focused on the topic (eg: Miller, 1974; Jones, 1976 & 1988). Similarly, in 1988, when Dunn attempted to apply Jensen's hereditary argument to Hispanics, the *Hispanic Journal* *of Behavioral Sciences* (1988) responded in a special issue. In a response in the same issue of the journal, however, Dunn retracted some of his arguments, admitting that he "took far too broad a brush to a topic more complex than I initially thought it to be" (p. 318). Nevertheless, Dunn asserted that in subsequent work his "main thesis will not change", although he would avoid "the controversial issue of inheritability which aroused such strong emotionality... " (p. 319).

Critics of such heritability arguments, however, have not been characterized by "emotionality." For example, one of the main criticisms of Jensen's position is that his argument was essentially a leap from data which suggested within-group IQ differences correlated with kinship, to the speculation that biological differences might also account for differences among groups, specifically Blacks and Whites. The inference from within- group to between group differences was made by analogy rather than by any evidence presented by Jensen (Heller et al. (1982). Another counter argument focuses on the difficulty of separating environmental stimuli from genetics. For example, a highly intelligent parent is likely to provide a child with greater cognitive stimulation than a less intelligent parent. Also, an educated parent is more likely to provide an environment that prepares a child for greater success on formal IQ tests.

Perhaps most important, it is impossible to ignore the role of the history of economic, educational, and social oppression of minority groups, in particular, Blacks in the U.S., as a competing explanation for lower scholastic performance (Samuda, 1989). However, this cannot be interpreted solely in terms of the performance of minorities themselves, but must also take into account the historical racist intent of much of Western psychometry. According to Nobles (1991), the hostility of Europeans towards African peoples, ever since the inception of the slave trade, has resulted in an "assault on African people by the misuse of tools of psychometry and racist scientific theories" (p. 46). With regard to Hispanics, similar points were made by the refuters of Dunn's article in the special issue of the *Hispanic Journal of Behavioral Sciences* (1988).

Finally, the very notion of race must be called into question. Hereditability arguments rest on the belief that so-called racial groups such as Blacks or Hispanics are genetically homogenous. To the contrary, racial mixture among these groups is so extensive that the terms are quite meaningless as indicators of genetic heritage. Indeed, in the U.S. the term Black is used to indicate any person whose genetic makeup knowingly includes Black heritage; such persons may be of any skin color, and are frequently genetically closer to White than to Black. This point has been eloquently made by Samuda (1989).

Linguistic Bias in Testing

In addition to general concerns about cultural bias, the issue of linguistic bias has also received a great deal of attention. This issue is relevant both to speakers of languages other than English and to speakers of varieties of English that differ from the standard.

Non/Limited-English Proficient (N/LEP) speakers. Section I of this report briefly reviewed litigation such as *Diana v. the State Board of Education in California* (1970) and *Guadalupe* (Arizona, 1972) cases, in which plaintiffs charged that Mexican American and Native American Non/Limited English Proficient (N/LEP) students had been placed in EMR classes on the basis of inappropriate testing in English. These cases were settled in favor of the plaintiffs. In the case of *Diana*, an out-of-court settlement stipulated that native language testing must be done, that testing should include non-verbal tests, and that Mexican American children in EMR classes should be retested using nonverbal test sections (Figueroa, 1984). Nevertheless, 13 years after the *Diana* decision, Figueroa (1984), in a study of five selected Southern California school districts, found continued non-compliance with the court stipulations for linguistically appropriate assessment and instruction.

In the case of non- or limited-English speakers, the issue of linguistic bias may be easier to demonstrate than that of cultural bias, since language is more clear-cut than cultural difference. For example, Cummins (1984) analyzed the patterns of performance on the WISC-R by students from a variety of language backgrounds, and found consistently higher scores on performance subtests as compared to verbal subtests. In particular, non-native speakers of English performed very low on tests of information and vocabulary. The inappropriateness of testing such students in English has been convincingly illustrated by Conroy (1992), who shows how vocabulary, short term memory of sentences, analogies, and verbal reasoning are influenced by one's competence in the language of the test. All tests, she states, are based on a student's knowledge of "Standard American English."

Decisionmaking re: language of testing. With regard to N/LEP speakers, a central issue in the matter of linguistic bias is the process by which the decision is made whether to test in a student's native language or in English. The complexity of this has been addressed in detail by Cummins (1980), who has distinguished between cognitive academic linguistic proficiency (CALP) and basic interpersonal communication skills (BICS) in the learning of a new language. The latter level of language proficiency may be observed in a child, yet that child's level of CALP may not be adequate to the academic and conceptual demands of formal testing. Cummins charged that the decision to test in English is frequently made on observations of the child's level of BICS. Further, Cummins cautioned that it may take a non-English speaking immigrant child up to five years to approach native norms in the conceptual and literacy skills required by formal testing.

It is also important to note that the issue of language cannot be solved simply by translating tests into the child's native language. In this regard, Mercer (1977) pointed to the impossibility of translating many words, and the fact that translation often changes the difficulty level of items, since a given word may be more or less frequent in one language than in the other. (For a comprehensive review of the intricacies of modifying tests for linguistic and cultural features, see Mercer, 1977).

Normal second-language development vs. language deficit. Equally important is the challenge of distinguishing between features of normal second language development as opposed to language deficit. In a study of decisionmaking practices for 1,319 Hispanic students in eight school districts in Southern California, Rueda and Mercer (1985) found that the predominant classifications were LD and SI. In the cases of SI, most students were referred for "poor oral skills"; the researchers' discussion of this pointed to the likelihood of professionals misinterpreting normal second language development as language deficits. As examples, the authors specified a common "orienting" period in second language development, in which learners tend to be silent and rely on receptive skills; further, they argue that surface features of language, such as accent, may also be misinterpreted as deficits. Rueda and Mercer's observation of the frequency of LD and SI classifications has been noted by other researchers, such as Ortiz & Polyzoi (1986), who also interpreted the trend in terms of misinterpretations of normal second-language development.

Carpenter (1992) has argued that since "distinguishing language disorder from language difference is central to making decisions about special education services for language minority children...those doing assessments should demonstrate special knowledge over and above basic information germane to any professional domain" (p. 140). Carpenter's study of the knowledge base of 284 speech-language specialists employed in two school districts in the Los Angeles area required clinicians to rate the language difficulties of Spanish-speaking children described in vignettes. The study found that clinicians with a greater knowledge base regarding second-language development and Spanish language and culture consistently attributed performance to causes other than disorder, while clinicians with a lower knowledge base "most frequently attributed [children's performances] to stable in-child conditions, an attribution that is consistent with a deficit approach" (p. 154). The author concluded that these results were promising in their implication that additional training and experience would make a difference in the practice of speech and language clinicians. This study also points to the need for bilingual assessors.

Similarly, Vadasey, Maddox, and Davidson (1992) investigated policies and practices regarding screening, assessment, and identification of migrant bilingual and special education children in 35 rural school districts in Washington State. Respondents in this ethnographic study indicated that there was a lack of specific training in cultural sensitivity regarding assessment, and that interpreters and instructional assistants were inappropriately used for test administration, and that training for interpreters for testing was not always adequate.

Findings of the Texas and California Handicapped Minority Research Institutes. Most of the above issues have been the focus of the Texas and California Handicapped Minority Research Institutes, which have provided a large and convincing data base for understanding how linguistic bias has operated in special education, with a particular focus on Hispanic students. Much of this research was summarized in the October, 1989 special issue of the journal, *Exceptional Children* which focused on the needs of Hispanic students in special education. Figueroa et al., editors of that issue, provided the following summary (p. 176) of the findings of these Institutes, on the issue of assessment:

- Language proficiency is not seriously taken into account in special education.
- Testing is done primarily in English, often increasing the likelihood of establishing an achievement or intelligence discrepancy.
- English-language problems that are typically characteristic of second-language learners (poor comprehension, limited vocabulary, grammar and syntax errors, and problems with English articulation) are misinterpreted as handicaps.
- Learning disability and communication handicapped placements have replaced the misplacement of students as educable mentally retarded of the 1960s and 1970s.
- Psychometric test scores from Spanish or English tests are capricious in their outcomes, though, paradoxically, internally sound.
- Special education placement leads to decreased test scores (IQ and achievement).
- Home data are not used in assessment.
- The same few tests are used with most children.
- Having parents who were born outside the United States increases the likelihood of being found eligible for special education.
- Reevaluation usually led to more special education.

Speakers of non-standard varieties of English. The implications of linguistic bias are just as relevant to students who speak other than standard varieties of English, since "their language differences [are] seen, not as variant dialects, but as incorrect usage of standard English" (Conroy, 1992, p. 181). This situation has been addressed particularly for Black students who speak Vernacular Black English (Labov, 1972; Taylor & Lee, 1991; Wolfram, 1976). Taylor & Lee (1991) offered a broad perspective on how the entire communication act is implicated by inappropriate standardized tests. They referred to this process as "culturally based communication and language bias", and identified five types of bias: situational, linguistic, communicative style, cognitive style, and test interpretation bias. The authors illustrated these sources of bias with numerous examples of how "incongruencies between the communicative behavior or language of the test giver (or test constructor) and the test taker can result in test bias" (p. 67).

The complexity of the language issue can be seen in the fact that language bias may also extend beyond IQ testing, into achievement testing. For example, bias based on language differences has been shown to impact the performance of African American students, who speak VBE, on standardized reading tests (Hoover, Politzer & Taylor, 1991). The latter researchers have documented the presence of phonological, lexical and syntactic bias in such tests. Phonological bias is present when students are expected to discriminate between sounds which may be pronounced differently in different dialects of English; lexical bias is present when words are tested which are likely to be entirely out of the realm of students' experience; and syntactic bias requires students to identify as "incorrect", grammatical structures which may be correct in the dialect of the child (eg: "you done it wrong", p. 87). The authors point out that examples such as the latter are not tests of reading per se, and are likely to affect teachers' judgments about students' overall language arts skills. Another example of both syntactic and lexical bias is the use of "superstandard" or archaic words or structures, that, according to Hoover et al., "are particularly inappropriate for working-class children" (p. 92). These authors emphasized that they were not arguing against children acquiring a wide vocabulary; rather, they are "endorsing the distribution of items across classes and cultures" (p. 92). Hilliard's (1977) statement of the situation pointed out the political implications of assuming the superiority of a core linguistic culture in a vast and culturally diverse society:

> It may seem to ordinary folk, that out of the hundreds of thousands of vocabulary words in American English, that it would be tough to find the 200 or so words for the item pool on a particular test of intelligence. It might even seem, with the diverse vocabularies, due to cultural, geographic, age or sex differences in usage, that a problem might be presented for the test makers. Not so! Undaunted, they plunge doggedly ahead assuming that there is only one common experience for the populations to be measured. The political impact of this is that he who picks the words has the power (p. 196).

Several scholars have made recommendations regarding the reduction of linguistic bias against non-standard English speakers. For example, Taylor & Lee (1991) recommended item analysis based on sociolinguistic knowledge and principles, and they identify some tests that do implement such knowledge by modifying the expected responses according to the speaker's dialect. However, they cautioned that the fact that the test taker may still exhibit language variation should not be taken to mean that he/she is necessarily disabled. The appropriate preparation of professionals conducting speech and language testing is crucial in addressing this form of bias and has recently been addressed by Wolfram and Adger (1994).

The Assessment Controversy in Context

It is important to view the context within which assessment for special education purposes takes place. First, the history of intelligence testing in the U.S. stands as a warning to those who might want to place significant weight on tests. Conroy (1992) reminded us that intelligence testing was used at the turn of the twentieth century to screen out "feeble-minded aliens" (p.75). She reviewed the attempts of H.H. Goddard, who had translated the Binet intelligence test into English, to identify immigrants who posed a threat to American democracy. Conroy stated: "In testing 30 adult Jews, he discovered that 25 of them were evidently feeble-minded. These tests demonstrated to him that America was now attracting the "poorest of each race" (p.175). Conroy argued that, however absurd these practices seem to us today, recent studies of disproportionate representation indicate "they have not slipped into the past" (p. 176), since many minority language students are classified as disabled on the basis of their scores on standardized tests.

Gould's (1981) study of the historical misuse of so-called scientific method to support theories about racial superiority is well known. Further, Nobles (1991) has shown how the more recent promulgation of pseudo-science in the U.S. has been used to wage a "psychometric war on African American people" (p. 47); his tracing of the publication and wide distribution of literature purporting to prove the inferiority of African Americans, revealed the racist intent of a great deal of this pseudo-science. However, this approach is by no means a thing of the past. Dunn's recent monograph (1988) on the performance of Hispanic students on the U.S. mainland raised the specter of continued use of pseudo-scientific methodologies for racist purposes. Dunn argued that race cannot be ignored as a factor in the performance of certain Hispanic groups. He observed that:

> ...most Mexican immigrants to the U.S. are brown-skinned people, a mix of American Indian and Spanish blood, while many Puerto Ricans are dark-skinned, a mix of Spanish, Black, and some Indian. Blacks and American Indians have repeatedly scored about 15 IQ points behind Anglos and Orientals on individual tests of intelligence..." (p. 64).

Citing a formula devised by Jensen, Dunn went on to calculate a "best tentative estimate" of the percentage of intelligence that is due to genetic as opposed to environmental factors. When he calculated in "the personality characteristics and attitudes of Hispanics, as a group", (which, he acknowledged, have not been established empirically, and would be difficult to measure with any precision), Dunn concluded that:

> It would seem safer to say that about half of the 10-12 point deficiency of Puerto Ricans and Mexican Americans is due to inherited or familial factors, within the individual, that influence both intellectual and personality characteristics, and the other half to the environmental factors that have been cited. (pp. 64-65).

Despite the continuing possibility of misuse of IQ information, however, it is also true that the uses of IQ tests have changed over the years. Early charges of biased testing occurred at a time when the IQ test could be, and frequently was, used as the sole indicator of disability and eligibility for special education placement. This practice was contrary to the IDEA that requires testing and evaluation materials utilized for the placement of students with disabilities be selected and administered so as not to be racially or culturally discriminatory, that such materials or procedures be administered in the child's native language or mode of communication, unless it is clearly feasible not to do so, and that no single procedure is the sole criterion for determining the appropriate placement for a student. IDEA requires that measures of adaptive behavior be included in the process.

Thus, the IQ test is no longer the powerful tool it was seen to be at the time of the *Larry P.* and other court cases. Reschly et al., (1988) have emphasized that the role of the IQ test comes after the development of regular education alternatives for a child who has shown chronic and severe school failure, and is accompanied by assessment of social skills, adaptive behavior, and innovations such as curriculum based assessment. Certainly, such approaches, a variety of informal and criterion based assessments, and the inclusion of comprehensive non-school based information represent current best practices, although the extent to which these are actually implemented is not known.

Although it is beyond the scope of this paper to identify the numerous suggestions that have been made regarding alternative approaches to standardized assessment, it is important to note that this is an on-going endeavor. Perhaps the most central premise to be addressed in making decisions about assessment approaches is the concept of intelligence as a fluid rather than a static phenomenon (Lewis, 1989), with the corollary that intelligence testing should identify the process rather than the outcome of learning. In this mode, Lewis recommended approaches to comprehensive and dynamic assessment; one particularly promising approach is that based on the work of Feurstein, as reported by scholars such as Dent (1991), Haywood (1988), Hilliard (1991), and Lewis (1989).

It is noteworthy that both Reschly (1988) and Hilliard (1992), scholars who stand on opposite sides of the assessment argument, have made the point that assessment is only a part of the picture: Another crucial aspect is quality of instruction: In the words of Hilliard (1992), "...the equity issues in special education services have less to do with bias and fairness than with pedagogical validity" (p. 171).

3. Quality of Instruction

Heller et al. (1982) emphasized that quality of instruction is equally as important as assessment in evaluating whether disproportionate placement is a problem. These authors specify the role of instruction in both regular and special education:

> Disproportion is a problem if children are unduly exposed to the likelihood of EMR placement by being in schools or classes with poor-quality regular instruction... Disproportion is a problem if the quality and academic relevance of instruction in special classes block students' educational progress, including decreasing the likelihood of their return to the regular classroom (pp. 19-20).

The issue of instruction in both regular and special education has been addressed on several fronts. At a broad level, questions about the influence of school climate have been raised; at the classroom level, attention has been paid to the notion of cultural incongruity in instruction and curriculum, language of instruction in the case of LEP students, and specific teaching strategies for basic skills such as reading and math. The efficacy of special education classes continues to be questionable (Heller et al., 1982; Polloway & Smith, 1988), showing little correspondence with the regular education curriculum (Ysseldyke et al., 1992), and the rate of exit from special education programs is notoriously low across the nation. Against this background, stands the current debate on inclusive versus separate programs for students with disabilities. This section will highlight some of the better known discussions of these areas, using literature from both regular and special education.

School Climate and Racial/Cultural Prejudice

The power of a prejudicial school environment to stigmatize and undermine students has been well demonstrated in the literature. Numerous studies of this phenomenon are common in regular education, and document the effects of social class and/or racial prejudice in the educational careers of poor and/or minority students. The multicultural education movement represents one thrust towards redressing the value system presented by schools (Sleeter & Grant, 1987), and the notion of applying a philosophy of cultural pluralism to special education issues is not new (Poplin & Wright, 1983). However, researchers have generally found that the curriculum of most schools, and, in particular, that of special education is predominantly monocultural. A few studies will illustrate the range of concerns, from studies of individual classrooms to studies of the macro systems in which schools attempt to do their jobs.

Rist's (1970) classic study of informal but systematic tracking of a group of first graders showed how the least socially acceptable children were swiftly and irrevocably relegated to the lowest reading group, where they received minimal instruction, and remained until the third grade. Similarly, in a recent study of Hmong children in a California school system, Trueba, Jacobs and Kirton (1990) charged that racial prejudice and the belief that the children have "inferior intelligence or an inferior culture" (p. 74) set the stage for these children's failure. These authors also looked at the role of alleged learning disabilities in the Hmong children, and concluded that cultural differences were more salient than within-child differences.

Studies of teachers' reactions to hypothetical case studies have shown that teachers expected special class placement significantly more frequently for Mexican American than for Anglo students (Aloia, 1981; Prieto & Zucker, 1981). Naturalistic studies of the same phenomenon have shown higher rates of teacher attention and praise to Anglo children (Buriel, 1983; Jackson & Cosca, 1974), as well as negative teacher attitudes toward non-English speaking students (Laosa, 1979). Irvine (1990), in studying teacher's attitudes to elementary and secondary Black and White students, found that teachers quickly formed lasting impressions of students' academic abilities, but that their impressions were most frequently inaccurate with regard to Black males. In the light of Rosenthal & Jacobson's (1968) well known, though admittedly controversial, "Pygmalion effect", the possibility of detrimental effects of teacher expectations upon children's performance must be taken seriously. Despite criticisms of methodological issues in the latter study, the belief that students are likely to be affected by teacher expectations has strong intuitive appeal.

A broader look at the effects of school structure was offered by Oakes' (1985) study of tracking procedures in 25 secondary schools. This study addressed both the formal structures and the individual interactions that create and maintain low track careers for students from low socioeconomic backgrounds. Besides the details of differential curriculum and instruction, Oakes showed how teacher expectations and the "differential socialization" of students in high versus low tracks served to maintain an inequitable system.

The most recent study of this nature is Kozol's (1991) dramatic detailing of the "savage inequalities" that currently exist in poor and urban school systems across the nation. Both Kozol's and Oakes' pictures go beyond the role of individual or even school based prejudicial practices; rather, they point to the structural inequalities on which the educational system itself is based. These inequalities reflect all aspects of educational planning -- the overall funding available to these schools, personnel allotment, teacher qualifications, teacher salaries, administration, building facilities and maintenance, curriculum, instruction, and community/parent involvement. It is against this background that actual instruction takes place for individual students.

Cultural Incongruity in Curriculum and Instruction

The argument that cultural mismatch in curriculum and instruction accounts for some proportion of minority students' poor school performance is well known. These arguments generally identify differences between students and teachers in such areas as learning style, verbal style, social style and cultural information. Although this author is not aware of any studies that attempt to show direct correlation between such features and special class placement, the inference is that continued incongruity, or "discontinuity" in cultural experience, can lead to failure, which, in turn, frequently leads to referral to, and likely placement in, special education. Further, there is research (Moll & Diaz, 1987) that indicates that utilizing the "cultural resources" of students does result in improved educational outcomes for children. Such approaches focus on making curriculum, materials, learning environments, and teaching styles more congruent with students' experiences.

The concept of learning style has been one of the most explicit arguments, and has focused on learners' differential reliance upon contextual information. The theory of "field dependence/independence" argues that children from some traditional (less technological) cultural backgrounds exhibit greater reliance on contextual information than do mainstream American children (Ramirez & Castaneda, 1974; Le Compte, 1981). The implication for education is that more abstract, decontextualized curriculum content and teaching methods will function in favor of mainstream children. While there have been some challenges to this theory, and the explicit warning that it could lead to stereotyping (Escobedo & Huggins, 1983; McDermott & Gospodinoff, 1981; McCarty, Wallace, Lynch & Benally, 1991), findings from the Texas and California Handicapped Minority Research Institutes showed that many ethnic minority students do learn best "under conditions of high context", as opposed to "behavioristic, task analysis driven, work-sheet oriented approaches" (Figueroa et al., 1989). The same point has been made by Cummins (1984), Ruiz (1989) and Trueba (1988). This argument has direct implications for special education, which is known to have relied heavily on such approaches.

Learning style has also been conceptualized in terms of students' relative reliance on visual versus auditory modes. For example, Philips' (1983) careful detailing of the predominantly visual style of Native American students showed how the verbal style of Anglo teachers did not capitalize on the skills of Native children. Further, social style, such as the reluctance of Native children to be "spotlighted" by the teacher, or to compete with their peers, illustrated the incongruity of common classroom practice with these children's accustomed cultural style. A preference for more cooperative, peer-oriented learning has been demonstrated by Mexican children (Delgado-Gaitan, 1987) and increased "verve" and propensity for movement has been noted among African American children (Allen & Boykin, 1991; Boykin, 1982).

Studies of differential verbal styles between minority and White children have also pointed to the potential detrimental results of cultural incongruity. Heath's (1983) classic ethnographic study of Black and White children's language learning demonstrated how the working class Black children spontaneously learned with their peers how "to talk junk" (an imaginative, playful style of talk), while their White counterparts were directed by adults to a more factual, structured conversational style. The style learned by the White children was congruous with that expected by elementary teachers, while that of the Black children was not. Similarly, Michaels' (1981) ethnographic study of the narrative styles of Black and White first graders revealed that the linear, topic-centered style used by the latter was readily understood by White teachers, while the branching, topic-associating style of Black children was seriously misunderstood. Closely related to this are studies of teachers' attitudes to non-standard English. Several studies have shown differential teacher responses to speakers of Vernacular Black English, as opposed to speakers of standard English (Collins, 1988; Piestrup, 1973).

The fact of acculturation is, of course, very important, since all cultural groups within the U.S. are in constant contact with the mainstream culture. However, differences may still be salient in the way children experience schooling. In the case of African Americans, for example, Boykin (1986), has pointed out that while they retain strong cultural patterns rooted in both their African and American past, "the Afro-American experience is essentially bicultural" (p. 62). In addition to this, Boykin argues that African Americans have also been subjected to "minority experience [which is] based on exposure to social, economic, and political oppression" (p. 66). Negotiating within these three realms results in what Boykin has called the "triple quandary" of African Americans. Boykin acknowledges that minority children must be given access to mastery within mainstream culture, since this is where power lies; thus, the challenge facing schools is to utilize the strengths of such children by teaching the required skills in a context that is "more culturally congruent for Afro-Americans" (p. 84).

Certainly, greater congruity of teaching style with children's learning, verbal and social styles have been shown to be successful in several studies (Boggs,1985; McCarty, 1990; Moll & Diaz, 1992; Philips, 1983; Ruiz, 1991, and many others). Further, the accommodation of minority students' styles and cultural information into classroom approaches has been shown to correlate with improved reading scores, as in the adaptation of Hawaiian "talk story" narrative style with native Hawaiian students (Au & Jordan, 1981).

An important caveat to considerations of learning style must be emphasized here: To say that children from a particular group have had more experience in one or another mode of learning or expression is not to say that they cannot, in appropriate settings and activities, utilize other styles. The notion of learning style should not be used to limit the range of children's opportunities. This point has been well made by McCarty et al. (1991) in their report of the success of a variety of strategies that engaged Navajo children in active verbal explorations, by building on students' experiences and traditional ways of learning. Further, a caution by McDermott & Gospodinoff (1981) is also appropriate: That acknowledged ethnic differences in learning style do not have to result in "irremediable miscommunication" (p. 214), if the relationships between teachers and students are developed in positive ways.

A powerful statement of the philosophy of building on students' experiences without stereotyping or limiting them, comes from Moll & Diaz (1987), who state:

> The key to understanding school performance is not in the study of mental aptitude or attitude toward schooling; it is in understanding the dynamics of material, local settings. To succeed in school, one does not need a special culture; we know now, thanks to ethnographic work, that success and failure is in the social organization of schooling, in the organization of the experience itself. (p. 311).

Language of Instruction

Language of instruction for non/limited English proficient (N/LEP) students has been a central concern in understanding the failure and special education placement of such children.

The findings of the Texas and California Handicapped Minority Research Institutes have provided a broad understanding of the way both language of instruction and modes of instruction have affected children from non-English speaking backgrounds (mostly Spanish speakers). The following summary by Figueroa et al., (1989, p. 176) points to the detrimental influence, in both regular and special education programs, of not providing native language support:

1. The behaviors that trigger teacher referral suggest that English-language-acquisition stages and their interaction with English-only programs are being confused for handicapping conditions.

2. Few children receive primary language support before special education; even fewer, during special education.

3. The second and third grades are critical for bilingual children in terms of potentially being referred.

4. Pre-referral modifications of the regular programs are rare and show little indication of primary language support.

5. Special education produces little academic development.

6. Individual education plans had few, if any accommodations for bilingual children.

7. The few special education classes that work for bilinguals are more like good regular bilingual education classes (whole-language emphasis, comprehensible input, cooperative learning, and student empowerment) than traditional behavioristic, task-analysis driven, worksheet oriented special education classes.

Items 2 and 7 of the Institutes' summary list point to a continuing concern about the provision of bilingual special education programs. Despite long-standing calls for such programs, and recommendations that bilingual education and special education develop an interface that allows for cooperative planning and administration (Baca & Cervantes, 1984), many LEP children in special education still do not receive any bilingual services. Research currently in progress (Harry, 1994) indicates that, for children with severe disabilities, linguistic differences are not taken into consideration in planning, and that the mandate for bilingual assessment is not adequately implemented.

Specific Instructional Strategies with Poor and Minority Children

A considerable knowledge base has accumulated over the years regarding the effects of various approaches to teaching of basic academic skills to poor and minority children. The findings, however, are by no means consistent, although more recent summaries seem to be coming to some consensus.

An important observation in the early 1980s led researchers to shift the focus away from assessment and towards alternative instructional strategies prior to referral: the finding of Algozzine, Christenson, & Ysseldyke (1982), that children who were referred were almost always tested and were very likely to be placed in special education. Thus, the last decade has seen a growing emphasis on what is commonly referred to as pre-referral strategies. While this could be thought of simply as all regular education instruction, it has come to be used for specific approaches implemented to reduce the likelihood of referral for children considered to be at risk of such referral.

Maheady, Towne, Algozzine, Mercer & Ysseldyke (1983) published one of the earliest papers that attempted to refocus the issue of disproportionate representation in this preventive way. These authors pointed to one central aspect of instruction that they considered essential, a concern with the notion of "academic engaged time", since this feature has been found to correlate strongly with student gains. The five approaches recommended by these authors also all reflected, "to varying degrees, the characteristics inherent in a direct instructional approach" (p. 450). These were: DISTAR, published by Science Research Associates; individualized instruction techniques within a structured "total language arts instructional program" (p. 452), developed by the Exemplary Center for Reading Instruction (ECRI); precision teaching, which the authors describe as a set of direct and daily measurement procedures "that guide educational decision-makers in making better instructional decisions" (p. 452); class-wide peer tutoring, a strategy designed to "increase the amount of time low-achieving students spend directly practicing appropriate academic responses (p. 453); and the Adaptive Learning Environments Model (ALEM), which the authors describe as a "tightly structured, hierarchically sequenced curriculum" (p.454). Maheady et al., summarized positive effects reported for all five approaches, and recommended that they be used in conjunction with appropriate referral and assessment strategies.

Academic engaged time. Some central strands come through the vast body of research referred to by Maheady et al., and by other reviewers such as Nevin & Thousand (1986). One is the concept of "academic engaged time", which sounds almost too obvious to address, but a review of research on instruction (Kamps, Carter, Delquadri, Arreaga-Mayer, Terry & Greenwood, 1989) has shown that poor children spend surprisingly less time directly engaged in academic learning than their suburban counterparts. These and other researchers from the Juniper Gardens project, which focuses on students from low SES backgrounds, include in their behavioral principles a focus on ecobehavioral analysis (Greenwood, Carta, Hart et al., 1992) which uses observational assessments to determine the effects of differential classroom instruction on low- and high-SES students. Kamps et al., (1989) have reported on student engagement in terms of the opportunities students are given to respond, which includes examining the kinds of stimuli that elicit responses as well as the kinds of responses given by students. They found that:

> ...specific, active responses were stronger correlates of achievement than behaviors such as looking at the teacher, raising hand, and looking for materials, behaviors that

> traditionally had been included in most definitions of on-task or appropriate classroom behavior...(p. 363)

This review concluded that:

> ...the rate at which students learn in school is determined by the opportunity to respond and to their levels of engagement in academic behaviors during instruction.... populations of poor students at-risk for academic retardation, as well as students with handicaps, remain vulnerable to failure to the extent that instructional procedures fail to optimize their opportunity to respond (p. 385).

A recent ethnographic study by Adger, Detwyler, Wolfram, and Harry (1992) noted the pervasive lack of academic talk in the classrooms of a group of inner-city elementary teachers in special and regular education classrooms. This study found that while Vernacular Black English was accepted for informal purposes in regular and special education classrooms, teachers provided minimal opportunities for talk about academic matters. Teacher-directed and controlled talk was an ingrained style which many teachers found difficult to change despite extended staff development in cooperative learning and cognitive strategies.

Direct instruction versus holistic methods. While all best practices would tend to include some version of the notion that students must be actively engaged in learning, findings of the Texas and California Handicapped Minority Research Institutes (1989) pointed to a central controversy in the teaching of basic academic skills: direct instruction vs. more holistic approaches. As was cited earlier, this report referred to the former strategies as "traditional behavioristic, task-analysis driven, worksheet-oriented special education classes " (p. 69). Perhaps the best known direct instruction model is DISTAR, which has been subjected to several studies yielding variable findings. Natriello, McDill & Pallas (1990), concluded a comprehensive review of evaluations of this program with the statement that, there is "a substantial body of literature... indicating that, with few exceptions, DISTAR has been an effective curriculum model for teaching basic academic skills to educationally disadvantaged students in the pre-primary and primary years" (p. 86).

Nevertheless, this kind of conclusion has been challenged by several scholars, for example, Cummins (1984), who argued that the "context-reduced" methods and drills characterized by DISTAR succeed only in developing "lower-level mechanical skills, such as decoding and computation" (p. 252). Cummins argued that low achieving students are the "most vulnerable to the distortions of drills and tests and most need the guidance and security of meaningful encounters with written language" (p. 240).

Similarly, Garcia and Pearson (1990) argue that while task complexity must be reduced during the acquisition of reading strategies, the more effective way to do this is to use "scaffolding" rather than "task decomposition". These authors stated that the latter, "a critical feature of direct instruction, has had its "day in court" for the past 30 years..." (p. II-14).

Rather, they concluded, "it is better to provide extensive scaffolding for authentic tasks than it is to decompose and decontextualize those same tasks" (p. II-15).

Comprehension versus skill-based reading instruction. Another critical strand in discussions about effective instruction for minority and poor students is research on comprehension-based versus skills-based teaching of reading. This is closely connected to the direct vs. holistic instruction debate, but the research has taken a slightly different turn. The focus here has tended to be differential teacher behavior to poor or minority versus middle class or White students. A review of findings on this topic shows that the studies of differential basic skills instruction for poor vs. middle class children is more than two decades old. Brophy & Good (1969) noted that first-grade children in high reading groups were praised more and criticized less than those in the low reading groups. These authors, and, later, Allington (1980) also found that teachers interrupted poor readers more frequently and tended to provided decoding cues to poor readers, while providing meaning-based cues to good readers. Brown, Palinscar & Purcell (1986) summarized this research as follows:

> ...there is considerable evidence that good readers spend more time reading for meaning...Poor readers receive much more attention on pronunciation and decoding, prosody is largely neglected, units of texts are read by fragments rather than large meaning-chunks, and meaning is questioned much less frequently". (p. 115)

These authors called for a combination of both discrete skills and meaning. As an example of a comprehension based reading program for minority children they cited the well publicized Kamehameha Early Education Program (KEEP), which utilized Hawaiian story telling styles and spent about one third of instructional time on decoding, within an overarching emphasis on comprehension.

More recently, a report from SRI's Study of Academic Instruction for Disadvantaged Students (Knapp & Shields, 1990) presented a concerted body of criticism of the methods typically used with disadvantaged students. The report reiterated the continuance of the differential teacher behaviors cited above, and stated that the dominant pattern of instruction with poor and disadvantaged students can be described as a "set of disaggregated language skills that lack meaning and coherence" (Knapp & Needels, 1990, p. IV-10).

4. Characteristics of Students' Homes and Communities

Ever since the 1960s war on poverty, the notion of deprived or disadvantaged families and communities as the source of students' failure has continued to be common. This kind of explanation has taken several forms, but cutting across them all is the common feature of poverty. The known inequities are gross and indisputable: In 1986, the Children's Defense Fund reported the tremendous health disadvantages of Black children as compared to White children in the U.S., including twice the risk of infant death, low birth weight, and poor prenatal care or premature birth. In 1991, the Bureau of the Census reported that poverty rates for

African American children were 45.9 percent, for Hispanic children 40.4 percent, and for White children 16.8 percent (U.S. Bureau of the Census, 1992). Associated with poverty are a host of problems, some of which could lead to greater vulnerability to developmental problems and disability.

Cultural Deficit/Difference Arguments

Early formulations of arguments focusing on characteristics of families and communities utilized a deficit view of minority cultures. However, current research no longer focuses on the kinds of value judgments that were evident in terms such as "cultural deprivation" (Reissman, 1962), or Moynihan's statements about the "tangle of pathology" (U.S. Department of Labor, 1965) in which minority families were thought to exist.

The more typical view currently is expressed by Samuda and Kong (1989), that "cultural deprivation" is "an impossibility since no individual is devoid of a culture" and that "culture can only be found wanting whenever the yardstick that is applied to it is basically ethnocentric in its gradations" (p. 65). Nevertheless, the problem remains that minority students are, essentially, in a situation of cross-cultural contact, where it is, precisely, the yardsticks of the dominant culture that determine how individual performance will be measured.

Research on parenting styles by Laosa (1980) illustrates how education can mediate cultural difference: his comparisons of Chicano and Anglo American mothers' interactions with their children showed clear differences, but also showed that the more educated Chicano mothers used strategies more like those of the Anglo cohort. Heath's (1983) comparison of White and Black parent-child interactions showed the same pattern. The implications of such information are that teaching middle-class strategies to minority parents should be a useful way of preparing children for better experiences in school.

Thus, whether the notion is framed as "deficit" or "difference", the goal of transforming family behaviors to be more congruent with those of the middle class continues to be a central feature in the interaction between schools and parents. A primary concern of compensatory education programs, for example, Headstart, has been parent education, by which educators seek to teach minority parents the verbal and social interaction styles valued by the school system. The dilemma in this approach is clear: While it is true that the parenting styles used by the middle class are more congruent with school styles, and therefore prepare a child better for the school experience, the strengths and relevance of differing styles are too often negated. Further, research on the effectiveness of parent training with developmentally delayed children suggests that traditional modes of training and disciplining children are not easily changed and that while short-term effects of training have been well demonstrated, adequate evaluations of long-term effects are few (Topping, 1986).

Attempts at parent training would be better advised to take an "additive" approach, in which professionals find out the areas in which parents themselves identify needs, and assist them by introducing them to a range of possible new strategies. For example, a study by Kalyanpur & Rao (1991) of professional interaction with low-income African American mothers detailed "empowering" approaches through which a respectful and collaborative professional was more effective than those who presumed to know what would be best for the parents to learn.

Educational Disadvantage

More recent formulations of the role of family and community tend to focus on the disadvantage at which students are placed by the fact of poverty and many related factors, and the correlation between these factors and school performance. Rather than "blaming the victim", the concept of "educational disadvantage" focuses on the interactions between families, schools, and the society. Natriello et al. (1990), for example, in a recent comprehensive review of the nature of educational disadvantage, define it in this way:

> ...we view educational experiences as coming not only from formal schooling, but also from the family and the community. Students who are educationally disadvantaged have been exposed to insufficient educational experiences in at least one of these three domains... families and communities may be viewed as educationally deficient without necessarily being socially deficient. For example, a strong, loving family may simply be unequipped to provide an educationally stimulating environment for its children. This may stem from cultural differences that make experiences in the family incompatible with those in U.S. schools or from economic limitations that leave families without sufficient resources beyond those necessary for survival. (p. 13)

Factors associated with disadvantage. In a review of literature on factors associated with poor performance in school, Natriello et al. (1990) list five key indicators: racial/ethnic identity, poverty status, family composition (single parent households), mother's education, and limited English proficiency (LEP). Using data from the National Assessment of Educational Progress (NAEP) in 1986 and 1988, these authors found that each one of these indices correlated with lower reading and mathematics proficiency as compared with the scores of children who did not experience these factors.

Recent data from the research team of Sameroff (1993) focuses on the overall detrimental effects of certain familial factors. These researchers' correlational data do not specify how these familial variables influence cognitive development, but Sameroff asserts that the overall impact seems to be depressive of IQ scores. Sameroff's research team has followed a cohort of four-year-olds up to the age of 18, and has compared their IQ scores to 10 risk factors, as follows:

1. mental health of the mother
2. parental anxiety
3. parental perspectives
4. parental interaction with infant
5. parental education

6. occupational status: semi-skilled or less
7. minority status
8. family support (eg: a male helper in the home)
9. stressful life events
10. family size (4 or more children)

Sameroff reports that the presence of zero risk indicators correlated with an average IQ of 118, while 7 indicators correlated with an IQ of 85. This pattern was found to be consistent at ages 13 and 18 for this cohort. Further, Sameroff found that for every risk factor present there was an average decrease of 4 IQ points for individual children. Cluster analysis showed no differences, suggesting that it was the overall effect of these factors, rather than any one, that was influential.

While these figures are compelling, it is still not clear exactly how any of these indices affects students, especially when taking into account the fact that there are students from poor families who do well. Clark (1983), for example, has argued that focusing on socio-demographic data tends to suggest that these features necessarily produce low achievement; rather, Clark calls for attention to the "psychological orientations and activity patterns" of family interaction (p. 7). Clark examined the patterns of parent-child dynamics in the homes of 12 high-achieving, low-income, black students, and found that, despite very different parenting styles, levels of parental education, and family constellations, the parent-child interaction in each home demonstrated an "implicit pedagogy" that profoundly influenced students' scholastic performance. Similarly, Trueba & Delgado-Gaitan (1988) found that, regardless of socio-economic level, parents acting in the role of "academic mentors" was the variable that distinguished between those Hispanic and Anglo students who did and did not finish high school. Of course, these findings do not refute that notion that a preponderance of numerous potentially detrimental variables would undermine the strengths of such families.

Disadvantage in schools. While it seems clear that differential family and community experiences prepare children differentially for schooling, it is very difficult to separate the effects of home from those of schooling itself. Early research on the relative effects of homes and schools on children's progress, found much greater correlation between home environment and student outcomes than between school environment and student outcomes (Coleman et al., 1966), and that increasing expenditures for schools did not improve educational outcomes (Jencks, 1972). However, other researchers have argued that such studies are limited by the exclusive use of large-scale surveys, by which quantitative indices of schools or family situations are compared, without examining the dynamics or internal structures that affect students.

Mehan (1978), for example, offered an impressive review of studies using the method of constitutive ethnography. Using examples from studies of professional-student interaction in classroom lessons, formal testing procedures, and counseling sessions, Mehan showed how differential professional questioning and response affects education, assessment, and career outcomes for different students. Mehan concluded that "large scale surveys may be appropriate for studying gross differences between schools, but they are not helpful in determining whether there are social processes operating there that contribute to inequality" (p.61).

Further, current examinations of the relationship between student outcomes and school facilities and processes do not support the earlier findings reported (Coleman et al., 1966; Jencks, et al., 1972). Rather, it is increasingly clear that there is a powerful structural relationship between the financial circumstances of communities and the schools that serve them. Simply put, the fact that local funding is the primary financial resource means that poor communities have poor schools. Challenges to this system have been effectively rejected by the courts, as in the case of the *San Antonio Independent School District vs. Rodriguez* (1973), in which the Supreme Court reversed the decision of the Federal district court, asserting that the Constitution does not provide for education as a fundamental interest calling for equal protection.

Nevertheless, Kozol's (1991) portrait of the plight of students in poor school systems across the nation emphasized that no constructive purpose can be served by minimizing the schools' responsibility in the opportunities provided to poor children. Kozol concluded his discussion of public education in New York with the following statement:

> There is a certain grim aesthetic in the almost perfect upward scaling of expenditures from poorest of the poor to richest of the rich within the New York City area: $5,590 for the children of the Bronx and Harlem, $6,340 for the non-White kids of Roosevelt, $6,400 for the Black kids of Mount Vernon, $7,400 for the slightly better-off community of Yonkers, over $11,000 for the very lucky children of Manhasset, Jericho and Great Neck. In an ethical society, where money was apportioned in accord with need, these scalings would run almost in precise reverse.
>
> The point is often made that, even with a genuine equality of schooling for poor children, other forces still would militate against their school performance...Nothing I have said within this book should leave the misimpression that I do not think these factors are enormously important. A polarization of this issue, whereby some insist upon the primacy of school, others upon the primacy of family and neighborhood, obscures the fact that both are elemental forces in the lives of children.
>
> The family, however, differs from the school in the significant respect that government is not responsible, or at least not directly, for the inequalities of family background. It is responsible for inequalities in public education. The school is the creature of the state. The family is not. (p. 123)

Educational Disadvantage and Disability

Against this background, it seems reasonable to expect that the vicissitudes and correlates of low socio-economic status may account for the disproportionate existence of disabilities among minority children and youth. Reschly (1991) has related the question of poverty directly to the issue of disproportionate representation. Referring to the larger percentage of Black students in MMR programs, he asked: "Is this percentage, though greater than the percentage for White students, reasonable in view of the known relations between poverty and MMR?" (p. 15).

It is well established that high proportions of students in special education classes for the mildly handicapped are from low socio-economic backgrounds. Shonkoff (1982) stated that, as early as 1962, *The Report to the President's Panel on Mental Retardation* documented a "remarkably heavy correlation between the incidence of mental retardation, particularly in its milder manifestations, and ... adverse social, economic and cultural status ..." (p. 9). However, as indicated in the discussion of classification earlier in this paper, unless we can be sure that these students had been so designated by an unbiased process, we cannot be sure that this observation is accurate. This was the point made by Mercer's (1973) study of Black and Mexican American students in Riverside, California, which showed a strong correlation between low socioeconomic status and placement in MMR classes. However, Mercer demonstrated that, by including an adaptive behavior score, rather than relying solely on IQ criteria, the prevalence rate for these students was dramatically reduced. The culturally biased nature of the assessment process was clear.

Nevertheless, high correlations between disabilities and low socio-economic status continue to be evident. As detailed in Section I, the data from the National Longitudinal Transition Study of Special Education Students (NLTS) indicated that substantially higher percentages of youth with disabilities, in the NLTS national sample, lived in families with incomes below $25,000, lived in single parent families, and came from families with lower educational attainment.

The literature on poverty and mental retardation has traditionally suggested that high correlations between mild mental retardation and low socioeconomic status are related to detrimental living conditions (Heber, 1970). However, the only set of factors that can be traced causally, as opposed to by correlation only, are those that Shonkoff has called "biosocial"; that is, biological factors that seem to relate to social conditions.

In a comprehensive review of the data on biosocial aspects of mental retardation, Shonkoff (1982) outlined the effects of numerous prenatal and perinatal conditions, including maternal alcoholism, intrauterine infections, low-birth weight, malnutrition, and lead intoxication, on the long-term health and cognitive development of individuals. Shonkoff observed that these and many other conditions are particularly prevalent among disadvantaged groups, who are "victimized by a greater frequency of harmful biological factors that can adversely affect brain development in early life and later lead to very real intellectual deficits". Shonkoff concluded that the "synergistic effects" (p. 172) of both detrimental biological and environmental factors "undoubtedly contribute" to the greater prevalence of mild mental retardation among poor and minority children.

More recently, Baumeister, Kupstas, & Klindworth (1992) have detailed a model of "the new morbidity" which attempts to specify the kind of synergistic effects suggested by Shonkoff (1982). These researchers outlined five major classes of variables that, in a "mutually transactive" pattern, create a synergistic effect in which their interaction is much more powerful than their main effects" (p. 145). These five classes of variables are:

1. **predisposing variables**, such as demographic characteristics, genetic endowment and behavioral characteristics
2. **catalytic variables** including acute and chronic poverty and its multidimensional effects
3. **resource variables** including access to appropriate education, health care, nutrition or counseling
4. **proximal variables**, which directly create certain conditions, such as low birth weight, intrauterine growth retardation, or preterm birth, but are the result of the previous three types of variables
5. **outcome variables**, which include adverse conditions such as developmental disabilities, chronic health problems, and so on.

Baumeister et al., acknowledged that understanding of the "precise nature of these correlations, causes, and effects is admittedly imperfect, but a great deal of data support our conclusions" (p. 147). Thus, these researchers asserted that, "While the connection between poverty and disabling conditions is not necessarily direct, it is nonetheless a major influence, particularly when mediated by various proximal and distal variables" (p. 147).

The prevailing figures on the conditions in which a great many ethnic minority children and youth live are inescapable. Baumeister and his colleagues placed the responsibility squarely on the shoulders of Federal and local fiscal policies. They conclude that, "Terribly sensitive but diverse issues such as income distribution, screening for diseases, improved housing, and health insurance will have to be addressed fearlessly and equitably (p. 172).

Given the clear vulnerabilities associated with child poverty, the argument that this may be a primary cause of disproportionate placement rates has a common sense appeal. It would also reassure that the root cause is not the prejudice of individuals but the societal problem of economic disadvantage, and that social class should be seen as the more important factor than racial or cultural bias. However, the overlap between social class with race and ethnic minority status in the U.S. makes it difficult to extricate one from the other. Furthermore, a central aspect of this very complex picture is that, as the earlier quote from Kozol (1991) stated, the ill-effects of poverty are further reinforced by the schools, which thus become a part of the overall picture of disadvantage.

For those who are concerned with the question of disproportionate representation of minority students in special education programs, the question must be: Does special education and the role it plays within the system of education mitigate or exacerbate the difficulties of poor and minority children? Is the procedure of classifying them as disabled order to provide them with appropriately tailored educational experiences helpful? Do the disabilities we "identify" actually exist as disabilities, or are they simply a cluster of outcomes resulting from an overwhelming dose of social, economic, and educational disadvantage, and processed through the biased eyes and instruments of the dominant culture? To the extent that children have, in fact, suffered damage to their cognitive or emotional health and development, how does their designation as "disabled" help?

Minority Parents' Participation in Special Education

The requirement for parental participation in special education has been devised in the law (IDEA) as a means of protection against the possibility of biased placement. Thus, the law makes provisions for the inclusion of parents in the IEP planning process and requires informed consent to evaluation and special education placement. Nevertheless, it is known that, except for extreme cases, parents generally have minimal influence on the decisionmaking process (Gilliam & Coleman, 1981; Mehan, Hartwick & Meihls, 1986). Further, it is quite possible that some professionals directly contribute to this pattern by treating parents differentially; Tomlinson, Acker, Canter & Lindborg (1977), in a study of 355 students in an urban school system, found that professionals contacted parents of majority students significantly more frequently than those of minority students.

Participation levels among minority parents have been noted to be particularly low (Lynch & Stein, 1987; Patton & Braithwaite, 1983; Vadasy, Maddox & Davidson, 1992). Further, the question of what constitutes informed consent has been raised by qualitative studies using interviews with a variety of minority parents, including, Native American (Vadasy, Maddox & Davidson, 1992); Puerto Rican (Harry, 1992), African American (Harry, Allen & McLaughlin, in press), and Chinese American families (Smith & Ryan, 1987). In these studies, it was evident that, although the required legal procedures for parental consent had usually been complied with, parents had very little real understanding of the placement process, the meaning of the labels being given to their children, the evaluation outcomes, or even the routine communications they received from the school system. Further, such parents tended to be very acquiescent, and found it difficult to challenge professional decisions.

The meaning of informed consent can be very subtle. It is not just a matter of reading parents their legal rights, since there may be many rights a parent would not really understand the importance of. For example, in a current study by Harry (1993), two recently immigrated, Spanish-speaking families did not know enough about the evaluation process to realize that their children should have been, but had not been, evaluated in Spanish. When the impact of an inappropriate language assessment is combined with the fact that neither of these children had been to school in their native countries, and were therefore not literate, it is clear that the overall outcome of the assessment must result in a grossly inaccurate picture of such a child's abilities. Add to this the information that both children had identifiable disabilities -- one had Down Syndrome and the other cerebral palsy -- and one can appreciate the magnitude of the negative impressions loaded against them, and, most important, the likelihood of inappropriate placement and intervention decisions.

Another aspect of informed consent is that the cultural basis of the concept of mild disability reflected in U.S. policy and practice is not shared by many parents in our increasingly diverse society. For example, researchers have noted differing definitions of what constitutes a "disability", and the fact that these differences can lead to considerable dissonance between professionals and parents (Brady & Anderson, 1983; Harry, 1992; Harry, Allen & McLaughlin, in press).

The informed participation of parents in the interests of children is, therefore, crucial. In the case of children who speak another language, or who have disabilities which make it difficult for strangers to understand them, parental involvement is critical to appropriate assessment and decisionmaking. Low-income and minority parents, however, may find it difficult to be assertive with professionals, and while parent advocacy training can be useful, several scholars have emphasized that schools have the responsibility to create a climate in which communication is structured so as to encourage parental participation in decisionmaking (Correa, 1989; Harry, 1992), and that professionals should assume responsibility for a certain amount of advocacy, rather than leaving it all to parents (Marion, 1981; Mlawer, 1993).

5. Broader Historical and Cultural Contexts

In this perspective, the disproportionate representation of ethnic/racial minorities in special education is seen as a result of an array of complex societal factors. Historical and continuing sociological forces have led to a society stratified along lines of race and socioeconomic status. The effects of these stratifications are not only evident in the gross inequities of schooling, but have far-reaching psychological and behavioral consequences for many who have been the recipients of oppressive economic and social practices. The performance of minority students in schools as well as the practices that discriminate against them are part of the structure of the society and must be addressed at the level of public policy as well as the individual.

At the broadest level, theories that focus on power relations in the society tend to conceptualize the role of schooling in terms of continuing or reinforcing the status quo. Perhaps the most extreme of these is social reproduction theory, which argues that schools are organized so as to replicate the hierarchical structures of the society. Arguing that school structure mirrors society's structure, and prepares lower class students for lower class jobs, Bowles & Gintis' (1976) formulation of their argument has a certain awesome logic:

> Thus Blacks and other minorities are concentrated in schools whose repressive, arbitrary, generally chaotic internal order, coercive authority structures, and minimal possibilities for advancement mirror the characteristics of inferior job situations (p. 132).

This view supports the work of Kozol (1991) cited earlier regarding the conditions of schooling for poor urban students. Similarly, the tracking practices detailed by Oakes (1985) are suggestive of such an interpretation. Yet Oakes herself pointed to a missing piece in this formulation: The response of students themselves to the system. Reviewing other studies of this process, Oakes concluded that:

> Rather than seeing students as basically passive, submissive recipients of school socialization, these closer looks at classroom interaction point out that students, especially lower-class students, often actively resist what schools try to teach them...The existence of student resistance, however, does not contradict Bowles and Gintis's view of the role and function of schools in reproducing the work force...The act of resisting what schools offer is part of how social and economic reproduction occurs (p. 120).

Taking this argument directly to minority groups' school performance, Ogbu's (1978; 1987) theory of differential psycho-social development among minority peoples presents what we might call a transactional view of the interaction between "caste-like" minorities and the society. He argued that it is not the fact of cultural discontinuity that militates against success, but a combination of discriminatory practice and the reaction of minorities to these practices. Ogbu distinguished between the reactions of indigenous minorities and immigrant minorities. By the former he means those who are native to a country, such as African Americans or Native Americans, as well as those whose history in the country is one of political domination, such as Chicanos or Puerto Ricans. He conceptualized immigrant minorities as those who have come to a country voluntarily.

Immigrant minorities, according to Ogbu, do experience "primary cultural discontinuities" with the host country, such as language, or nonverbal rather than verbal learning styles. Nevertheless, immigrants tend to approach the host country from a frame of reference which allows them to use the local social hierarchy to attain their goals, rather than internalizing the position of low caste to which they are relegated.

Ogbu argued that indigenous minority groups, on the other hand, finding themselves in a position of subjugation in their own society, and observing that the job market presents a discriminatory "job ceiling," tend to react to these inequities by developing certain "secondary cultural discontinuities" which work against their success. These could include behavioral styles, particularized language usage, or a sense of collectivity. For example, in his research with Black youth in a California school district, Obgu (1974) observed what he called a "retreatist adaptation" from the culture of the school. Another example of this reaction was given by Fordham (1988), who observed that while successful Black youth used a "raceless persona" in order to succeed in school, the majority of Black youth developed an "oppositional social identity" by emphasizing Black linguistic or behavioral styles that were not valued by the school.

Ogbu's theory seems very plausible and is supported by several cross-cultural studies that observe similar dynamics among immigrant and minority groups elsewhere. For example, Ogbu

(1987) reported that West Indians have been more successful in the U.S., where they come as immigrants, than they have been in Britain, where they held the status of colonial peoples; he also reported a higher achievement by immigrant vs. indigenous Polynesians in New Zealand. DeVos (1973) reported that the Buraku, a Japanese minority group of low caste, are low achievers in their own country, but are much more successful when they emigrate to the U.S.. Troike (1978) reported that Finnish students do poorly in Sweden, where they are a low-status minority group, but do well in Australia where they have higher social status.

There is one more example of power relations in the U.S. that has not, so far, been officially noted in considerations of disproportionate representation, and which could offer a microcosmic view of Ogbu's theory of the performance of caste-like minorities. Section III detailed known patterns of placement of minority groups and noted that the only case of overrepresentation of Asian students is to be found in Hawai'i. It is Native Hawaiian students who account for this apparent anomaly. It seems likely that Ogbu's theory could be applied to this situation, where a history of domination of this indigenous group, and the repression of its culture and language, could result in some of the psycho-social characteristics of "caste-like" minorities. Together with a culturally incongruous, and, perhaps rejecting, school system, as well as a high incidence of poverty found among Native Hawaiians, this kind of explanation could prove powerful. Such research has not, to our knowledge, been done.

Criticisms of Ogbu's theory relate mainly to the fact that there are many disconfirming examples of individuals who do well, and also that there is a great deal of overlap between immigrant and indigenous groups, so that many groups fall between the cracks of the theory (Trueba, 1988). However, as a general theory, Ogbu's framework has been well received.

Cummins (1986) presented a perspective that is similar to that of Ogbu, and focuses on the power relationships between minority students and the dominant society. His view of the situation is that only a holistic approach will begin to redress the balance of power, which he sees as the overarching cause of minority students' failure. Cummins stated that the difficulties of minority students must be addressed at three levels: (1) between students and teachers in the classroom, (2) between schools and minority communities, and (3) the power relations between groups within the society as a whole. At all three levels, perspectives and practices that treat minority languages and cultures as something to be gained rather than to be excluded, will tend to empower rather than disable students.

6. Legal and Administrative Influences

Heller et al., (1982) included legal and administrative requirements in their list of potential contributors to minority disproportionate representation in special education. This is a complex and important topic, since the legal framework drives all aspects of special education policy and practice. Detailed attention to the numerous aspects of this topic is beyond the scope of this paper, but the main perspectives will be outlined.

While the debate on reform and restructuring has not taken as its focus the effects of special education on minorities, many organizational and administrative policies can exacerbate the high rate of placement of minority students in special education programs. The exigencies of the current dual system, based on the separation of students identified as disabled, have already been addressed in our consideration of the limitations of the classification system.

Further, some of the traditional approaches to grouping students and structuring special education programs affect minorities directly or indirectly. For example, grouping by program means that many students must be transported to schools out of their neighborhood. Personal observations (author's and other anecdotal information) indicate that there are schools within some districts where almost an entire special education class may be composed of African American students, in a school serving a majority White population. Such an arrangement can only lead to further detrimental stereotyping of Black students. There are other traditional structures that work to the detriment of children who enter school without the kinds of skills expected in kindergarten or first grade. In particular, the lock-step structure of grade promotion or retention, where a child must "catch up" within a year or suffer the stigma and seeming punishment of retention.

A number of recent studies have sought answers to such structural and administrative dilemmas affecting minorities and/or students with handicapping conditions. The Quality Education for Minorities Project (1990), in a comprehensive report on the needs of minority students in the education system, recommended sweeping structural changes, including, the termination of ability and grade grouping, Federal support for an intensive preventive approach to preschool services and health care, and State policies that would equalize funding among school districts. The details of the funding recommendations in that report are beyond the scope of this reviewer's comment, but should be given serious attention by policymakers.

Hales & Carlson (1992), in a study of the views of 157 experts on special education, reported a number of restructuring concepts that were considered highly desirable by this team. These included that IDEA and Chapter I funds should be blended for instruction and that regular education would "understand and accept their role in serving children and youth with mild disabilities" (p. 27). The latter, however, was noted as only being possible if there were "a dramatic increase in training and collaboration between regular and special education" (p. 27).

McLaughlin & Warren (1992) offered a comprehensive report on the range of issues and options across the country in restructuring special education's administration, accountability, curriculum and staff development. These authors offered specific strategies to aid policy makers in implementing various options, and emphasized that staff development is so central to change that resources must be committed to this effort even before a mission statement is developed.

The Office of Special Education and Rehabilitative Services (1991) identified specific goals that would impact the education of minority students with disabilities. These included increasing the cultural sensitivity of professionals and the number of minority personnel in special education, improving outreach to minority communities, and an intensive thrust towards increasing the participation of minority individuals and institutions in grant competitions and grant reviewing.

Perhaps the most obvious aspects of the legal structure within which special education operates this issue relate to funding. The Federal, State, and local incentives and constraints, as well as requirements for diagnostic categories and the way these are funded, may influence decision making that could have a negative impact on minorities. The greater availability of dollars for certain categories, or for greater numbers of children, "could encourage overcounting, and minority children may be more likely to be eligible and therefore placed in expanded special education programs" (p. 14).

Ysseldyke et al., (1992) noted the dramatic increases in Federal expenditure during the first 10 years of the Education for all Handicapped Children Act (EHA): that under Part B of the EHA State Grant Program, from 1977 - 1988, Federal funding increased five fold from $251,769,927 to $1,338,000,000, with per pupil allocations to each increasing by 435 percent. These authors also pointed out that during the same period the number of learning disabled students increased by more than 140 percent. Further, Ysseldyke and his colleagues tied the question of funding to the exigencies of the classification system, and brought the argument to a frightening conclusion:

> Identifying students by category permits official agencies to allocate assistance and provide progress reports. It also provides incentives for school personnel to identify and label certain students more than others. If funds are linked to numbers of students and no checks and balances are attached to classification systems, the temptation of more money for more students is very real. (p. 119)

Although not established by research, the effects of funding on placement patterns is widely thought to be substantial. Beyond the impact of special education funding, the literature on the poverty conditions of minorities emphasizes that the local funding structure provides poor children with inferior schools. This inequitable arrangement has been referred to earlier in this report.

A Unified Versus a Separate Education System

In sum, the underlying premise of separateness in special education has ensured that students with disabilities receive an education. Paradoxically, it is the opinion of many that this very separateness has led to the creation of structures and procedures that exacerbate the learning difficulties of students, escalate the numbers of students placed in special education programs, and relegate students to a veritable "land of no return" (Harry & Smith-Lewis, 1992).

It is in an attempt to remedy this state of affairs that the inclusion movement has gained considerable momentum in recent years. This movement differs from that of mainstreaming in that the latter accepted the notion of separate programs but advocated for students presumed sufficiently competent to be returned to "the mainstream." The inclusion movement, on the other hand, is understood by many to posit one educational system in which all students participate with appropriate supports provided to meet the special needs of individuals. Rather than having to be designated "disabled" to receive such supports, students would be assessed to ascertain the particular instructional and curricular adaptations they need.

There is considerable difference of opinion concerning the concept of inclusion, however. While some scholars feel that the notion of a unified system is an underlying premise of inclusion (Stainback and Stainback, 1984), McLaughlin and Warren (1992), in studying programs across the country, have made a distinction between inclusive or heterogenous schools and a unified system, pointing out that inclusion of all children in their neighborhood schools "can exist within a separate categorical special education program administration" (p. 34). Skrtic (1991), in a comprehensive summary of the debates surrounding this issue, also outlined a range of positions on a spectrum of separateness to inclusiveness. This range included arguments regarding which students should be included, the role of special educators, and the extent to which support services should form a coordinated system as opposed to the current continuum of services on which special education is built.

It is the opinion of this author that, given the complex web of influences that lead students to have difficulty in school, flexibility and responsiveness are the most needed ingredients of a restructured educational system. It will be self-defeating to maintain separate administrative systems while seeking to diminish the barriers between students presumed to have and not to have disabilities.

With particular regard to the main concern of this paper -- disproportionate representation -- schools need to concentrate and intensify resources in flexible ways that will allow teachers and other professional personnel to meet minority students where they are, that is, to identify and build on the strengths that students have gained in their diverse communities. Rather than assuming that students either enter school "ready" or "not ready" to learn, as is suggested by the Education 2000 vision, schools should recognize that all children are ready to learn, and that it is the job of educators to discover what children are ready for and to build on that readiness. That many students from diverse backgrounds will enter school relatively unprepared for traditional formal schooling does not have to mean that they have "disabilities." Where they do have verifiable disabilities, it is the job of schools to enhance their strengths and the commonalities they share with their peers, rather than to separate and stigmatize them. The idea of building on students' levels of readiness is by no means new: Twenty years ago Williams (1974), referring to Black children, offered an eloquent argument which is equally applicable to the increasingly wide diversity of children that constitute school populations in American society:

> The basic contention here is that a problem of match or mismatch occurs between the Black child's background experiences and the required circumstances he will encounter

> in elementary school... The need is to develop educational models that plug into the Black child's linguistic, cognitive, and learning styles at the time of his initial exposure to formalized education in order (1) to capture his interest and (2) to maximize his opportunities for learning (p. 19).

As will be seen in the concluding chapter, this author supports the many recommendations of those who envisage education as a unified system that allows for coordination and collaboration among a variety of personnel and services, and, where appropriate, the merging of currently existing separate programs. McLaughlin and Warren (1992) have described the central tenets of a unified system as follows:

> The key belief is that schools are organized around services, not programs. In a unified educational system, human and other resources are employed to provide a range of services in a range of settings to students with unequal educational needs... A unified system requires flexibility in program implementation and funding. This option represents a major change in the way special education currently operates; supporting parallel program bureaucracies to provide separate specialized services is viewed as inefficient and duplicative. (p. 30)

V: RECOMMENDATIONS

More than a decade after the National Research Academy's Panel on the overrepresentation of minority students in programs for the mentally retarded, little has changed. The patterns of disproportionate placement have shifted somewhat, but the main features are that there is now overrepresentation of African American students in most disability categories nationwide, a variety of patterns of over and underrepresentation of Hispanic students in some categories in certain States, and evidence of overrepresentation of Native Americans in some categories in States where their overall population is high (U.S. Department of Education, 1987 & 1993). Overall, it is Black students who most consistently fare the worst as far as disproportionate special education placement is concerned.

This report has attempted to show that there is no single reason for this continuing problem. Based on the criteria outlined by Heller and his colleagues (1982), this report finds that the disproportionate placement of minority students in special education programs is a problem, by virtue of many gross educational and social inequities, whose strands combine into a complex and mutually inextricable force to place poor, and, in particular, poor minority students, at a disadvantage. This disadvantage too often leads to failure, inappropriate assessment, the designation of disability, and placement in stigmatizing, ineffective programs. Despite the gains made by including, rather than excluding, children with disabilities from school, the system that has been put in place to address the learning difficulties of such children has, in many ways, exacerbated rather than mitigated their learning conditions.

The answer does not lie in changing the figures, since figures could be changed by simply changing definitions or procedures. As Heller et al., (1982) emphasized, solutions must address the reasons for disproportionate placement, rather than the figures themselves. These authors stated that:

> Altering placement rates and reducing disproportion in EMR programs may remedy one set of problems - for example, the immediate problem of racial imbalance - but does not attend to the fundamental educational problems that underlie student placement in programs for mentally retarded students. (p. 5) Thus, they concluded that solutions must focus on "the validity of referral and assessment procedures and the quality of special education programs and outcomes" (p. 5).

A decade after that excellent report, the recommendations of this small effort would go further by challenging the concept of disability on which the current system is based, and providing a structure that requires highly specialized support after children have exhibited a pattern of chronic and continuing failure.

Both historical and current social/political forces contribute to the pattern of student failure and it would be too simplistic to believe that the efforts of schools alone can redress these inequities. Yet this report is concerned with schools, but with schools in the largest sense - the way they are funded, structured, and maintained, as well as the way individuals within these buildings are treated and taught. The recommendations, therefore, are intended to confront the breadth of the difficulties that lead too many students to a career of "disability", and to replace these with a system that anticipates both the strengths and limitations of students, and that seeks to prevent rather than remediate failure.

Recommendations:

1. **The Collection and Use of Data on Disproportionate Representation**
   (i) **Projecting data for all States:** OCR's bi-annual summaries are vital information that should continue to be collected. While it is beyond the scope of this report to comment on the survey techniques used, one point should be emphasized: Projected data for all States is crucial information, since national figures alone do not reveal the tremendous complexity of the issue, and the reported figures cannot be used with any confidence. Data should also be collected regarding language status and special education placement.
   ii) **Investigating discriminatory practices**: Investigations should focus as much on pre-referral instruction and intervention as on the assessment process itself. If the classrooms, instructional personnel, curricula, or general conditions of schooling to which students were exposed prior to being referred to special education are shown to be inadequate to students' needs, then this should be considered discriminatory practice.

2. **Disbanding the classification system:** The recommendation of this report is not new - that the current classification system be disbanded. In its place should be a system that designates and provides appropriate and intensified services for all students who need them, either by virtue of individual performance, or perceived likelihood of risk for failure. This should be applicable to all students, regardless of the severity of their disability.

3. **Restructuring for a unified system of special and regular education**: The education system should include special education as a supportive, rather than an alternative program. **Within such restructuring, the following aspects would be central:**
   - (i) **The role of special educators and related service personnel:** These professionals must continue to be an essential resource within the system of education. Instead of working separately in separate programs with students, these personnel should work in collaborative teams with regular educators, supporting students through both preventive and remedial interventions.
   - (ii) **The role of personnel with special training in multicultural education:** These personnel will also be an essential resource in all school systems. Their role should be in the development of curriculum and instructional approaches that represent and value the diversity that makes up the U.S., and in supporting teachers in becoming responsive to the differences of all students.
   - (iii) **The role of personnel with special training in teaching English as a second language (ESOL):** These personnel should be an integral part of the instructional team at all schools that serve non-English speaking communities.
   - (iv) **Intensive and on-going staff development:** Staff development will be crucial for all personnel. School schedules should include planning and development time for all teachers and staff, and should also include an interagency focus
   - (v) **Inclusion of all students in their neighborhood schools:** All students should have the right to attend their neighborhood school. Instead of transporting students with learning difficulties to special schools and paying itinerant specialists to offer fragmented services to students in these settings, school systems should provide the needed array of services within every school. Decisions about the intensity of such provision should be made on the basis of economic need.

4. **Restructuring for prevention of failure and the redress of disadvantage:** Federal, State and local resources should be heavily weighted in favor of poor and school districts. Thus, intensified funding should be directed according to economic and academic needs of the student population, rather than by disability classification. **Within such restructuring, the following aspects would be central:**
   - (i) **Recruitment and retention of specialists and teachers motivated to work with disadvantaged students:** States and local districts should provide both fiscal and environmental incentives to attract and retain specialists in special education and

related services, ESOL, and multicultural education. High priority should be given to recruitment of bilingual personnel in the languages represented in the school system.

(ii) **Concentration of such personnel in disadvantaged school districts:** The best resources and personnel should be concentrated in these schools.

(iii) **Chapter I funding and restructuring:** Chapter I funds, which now reach only 40% of those eligible (QEM, 1990), should be increased and blended with funding for special education. These combined resources should be built in to the educational services provided in schools in all low-income neighborhoods.

5. **Assessment in context, for the purpose of modifying and improving services:** Both informal and formal testing of students should be tied to instructional implications, rather than be conducted solely for the purpose of eligibility for services. **To this end, the following approaches are recommended:**

(i) **Criterion based models of assessment:** State regulations regarding testing should require the use of criterion based models of assessment in the testing of all students.

(ii) **Dynamic models of assessment:** Assessment approaches that reflect a dynamic rather than a static view of intelligence and learning, should be preferred over traditional I.Q. testing (for example, Feurstein's Learning Potential Device, or other which emphasize a student's ability to learn within the testing process) rather than what was learned prior to testing).

(iii) **Assessment in tandem:** Tandem testing of students, using collaborative teams of psychologists, speech and language pathologists, teachers and other relevant personnel should become a regular feature of the assessment process.

(iv) **Pre-referral strategies:** In a system of intensified, integrated supports, interventions for the prevention of referral would become an on-going part of the educational process. For example, an in-house speech/language, reading, or special education specialist would be a member of a team who routinely supports classroom teachers by observing and informally testing students, with a view to assisting in the development of appropriate modifications to the student's program.

(v) **Inclusion of parents in on-going evaluation of students:** Parents should be invited to participate in early observations and discussions regarding a child's difficulties. Formal assessments should also include parental perspectives.

6. **Curriculum and instruction in context:** The educational system as a whole should operate with respect for the real contexts of students. **To this end, the following features will be essential:**

(i) **Multicultural education:** Both what is taught and how it is taught should be scrutinized for their applicability to the multicultural population that constitutes U.S. society. The emphasis should not be on any one group: Rather, the history and cultures of all groups, as well as their contributions to modern societies, should be given a prime place in the curricula.

(ii) **Instruction in basic academic skills:** Basic academic skills of reading, writing and mathematics should be taught intensively and within a flow of meaningful material that draws upon the everyday experiences and cultural resources of all students.

(iii) **Instruction to non/limited English proficient students:** Every effort should be made to teach basic academic skills in the native languages of children. Where this is not possible because of very small numbers of non-English speakers or the unavailability of bilingual personnel, ESL specialists should members of instructional teams that provide intensive support to classroom teachers, so that N/LEP children lose minimum content while they are learning English.

7. **Grouping students in schools:** Grouping of students should reflect the principle that children learn and develop at different rates, and that learning is an interactional process where peers of differing abilities contribute to each other's knowledge and skills. **To this end we recommend the following:**

(i) **Grade clusters rather than annual promotions:** Students should be grouped in grade clusters rather than in the annual, lock-step model currently used. For example, K through 2, or Grades 1 through 3 combinations would provide students who enter school with less educational advantage with the opportunity to transition to school at their own pace, rather than having to "catch up" in one year or be retained; or, indeed, rather than being expected to enter school "ready" to learn a set of predetermined skills upon entry. This approach would acknowledge that all children are "ready to learn", and that it is the job of schools to assess what it is a child is ready for and to provide the kind of scaffolded instruction that moves the student forward.

(ii) **Groupings should be heterogenous in terms of abilities:** Heterogenous groups, with individualized teacher and paraprofessional support, as well as a variety of small group and peer mediated learning strategies, should become the dominant, though not necessarily the only, teaching/learning mode. Teacher-directed, whole group instruction contributes to the belief that homogenous groups are more efficient for learning; the strengths of this traditional model should be utilized thoughtfully and only where appropriate.

(iii) **Small is better:** Both schools, and groupings within schools, should be smaller rather than larger.

8. **Schools as community resources:** Schools should become resources for entire communities rather than just for students. In this way, schools can provide linkages with other services needed by students and their families. **To this end, we recommend the following:**

(i) **After-school adult programs:** Adult literacy (including primary language literacy and ESL), parenting practices, job skills, and other such programs should be offered in local school buildings after school hours. Linkages between community agencies and schools should be made explicit and continuous, so that parents who have had unpleasant or unsuccessful experiences in their own school careers will have the opportunity to see schools as supportive to them.

(ii) **Home-school collaboration models should be studied and implemented:** The participation of parents, community members, local business people on school-based decision-making bodies should be an explicit goal of all schools.

(iii) **Parent involvement in special education services in a restructured system:** On-going information regarding student performance should be offered to parents on a regular, face-to-face basis. The current approach of many suburban schools, which typically arrange for parent-teacher conference mornings or afternoons, should be a regular feature of all schools. Schools with high concentrations of poor and/or minority students should commit resources to the provision of family liaison workers whose job it is to explain to parents the process and purpose of integrated special education services.

In sum, schools should be "user friendly", open, and welcoming of children and their families.

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